



Happy Time: Participatory Rural Appraisal of Time Use, Happiness, and Gender in Rural Uganda

The Harvard community has made this article openly available. [Please share](#) how this access benefits you. Your story matters

Citation	Khalaf, Haneen. 2016. Happy Time: Participatory Rural Appraisal of Time Use, Happiness, and Gender in Rural Uganda. Master's thesis, Harvard Extension School.
Citable link	http://nrs.harvard.edu/urn-3:HUL.InstRepos:33797322
Terms of Use	This article was downloaded from Harvard University's DASH repository, and is made available under the terms and conditions applicable to Other Posted Material, as set forth at http://nrs.harvard.edu/urn-3:HUL.InstRepos:dash.current.terms-of-use#LAA

Happy Time: Participatory Rural Appraisal of Time Use, Happiness, and Gender in Rural
Uganda

Haneen Khalaf

Field of International Relations
Master of Liberal Arts in Extension Studies

Harvard University

May 2016

Abstract

We all want to be happier, but how can we achieve that? The first step is to understand the factors that contribute to happiness. This thesis focuses on one central factor that contributes to happiness—time use. How can time allocation be adjusted in order to maximize the happiness of people?

The following chapters will explore the relationship between time use, happiness, and gender. Specifically, new data, collected through a participatory rural appraisal in three villages in rural Uganda, will be presented. The data evaluate the way in which people suffering from time poverty allocate their time, how much happiness they experience from these activities, and the differences between men and women. Do women spend more time doing things that make them happy or do men?

Exploration of the data showed certain activities where women experienced a greater amount of happiness from than the amount of time they spent doing them, but that men spent a greater amount of time on than the amount of happiness they derived from them. These discrepancies were the focus of the discussion, as they expose time allocation inequalities that can be adjusted in order to maximize the happiness of both men and women within these communities. For example, if women report feeling a greater amount of happiness from cooking than the amount of time they spend cooking, and men report spending a greater amount of time cooking than the happiness derived from cooking. If time is reallocated and women spend more time cooking, men will spend less time cooking, which maximizes both men's and women's happiness.

Understanding these time use trends allows existing non-governmental, non-profit, and governmental organizations the opportunity to better understand the communities they serve. In turn, poverty alleviation programs can be catered towards the local populations on a personal level, allowing for more sustainable change to be made.

Biographical Sketch

Haneen Khalaf was born and raised in Detroit, Michigan and then went on to receive a bachelor's degree in Business Tourism from Arizona State University. After traveling and fulfilling her life-long dream of living in Hawaii, she then moved to Cambridge to pursue her Master in Liberal Arts degree with a concentration in International Relations. Haneen became fascinated with the subject of happiness through her travels and after taking a tourism course at Arizona State University where she was introduced to Bhutan's Gross National Happiness policy. After briefly living in rural Uganda, Haneen was able to experience happiness in a completely different context. As she continues to travel and live around the world, she seeks to answer the ultimate question – what makes us happy?

Dedication

This is dedicated to my incredibly supportive and loving parents, brother, and puppy brother who stood by me during this difficult and trying journey. Thank you for encouraging and believing in me – I am forever grateful for your support and love. I would also like to dedicate this to my friends who are like family – thank you for constantly reassuring me that anything is possible in life and for always believing in my crazy dreams. Lastly, thank you Sparkles for the countless hours discussing the subject and thank you to my Village Enterprise family for helping me count thousands of paperclips in the middle of a village in Uganda. I love and appreciate you and I wish pure and absolute happiness for you all!

Acknowledgements

I would like to thank Professor Doug Bond for being such a strong and effective advisor and making such a hard task seem so much more manageable. Your guidance was crucial in my ability to complete the thesis proposal. I would also like to thank the inspiring and delightful Professor Michael Norton for his patience and direction during the thesis-writing process and for having a constantly pleasant and witty energy that made the process of writing actually enjoyable. Thank you both so much for your time, knowledge, and advice.

Table of Contents

Abstract.....	iii
Biographical Sketch.....	v
Dedication.....	vi
Acknowledgements.....	vii
List of Tables.....	x
List of Figures.....	xi
I. Introduction.....	1
History of Happiness in Public Policy.....	3
Definition of Happiness.....	5
Happiness Indicators.....	8
Time Use.....	11
II. Methods.....	16
Participatory Rural Appraisal.....	16
Photo Series of Study in the Field.....	22
Data Analysis.....	25
III. Results.....	28
Village 1 Results.....	28
Labor versus Non-Labor Activities.....	30
Cantril Ladder of Well-Being Scale Ratings.....	31

Difference Between Time Spent and Happiness.....	32
Village 2 Results.....	38
Labor versus Non-Labor Activities.....	40
Cantril Ladder of Well-Being Scale Ratings.....	40
Difference Between Time Spent and Happiness.....	41
Village 3 Results.....	45
Labor versus Non-Labor Activities.....	46
Cantril Ladder of Well-Being Scale Ratings.....	47
Difference Between Time Spent and Happiness.....	48
Activity Ranks – All Villages.....	52
Labor versus Non-Labor Activities.....	55
Outliers.....	55
Correlations.....	58
Time Spent, Happiness and Cantril Ladder for Men.....	62
Happiness and Cantril Ladder for Men.....	64
Time Spent and Cantril Ladder for Men.....	65
Time Spent, Happiness and Cantril Ladder for Women.....	66
Happiness and Cantril Ladder for Women.....	68
Time Spent and Cantril Ladder for Women.....	69
Group Discussion.....	70
Comparison of Cantril Ladder Responses.....	70
IV. Conclusion.....	81
Research Limitations and Study Improvements.....	85

Larger Implications.....	87
Appendix A.....	88
Appendix B.....	97
Bibliography.....	112

List of Tables

Table 1: Study Location, Data, and Scope.....	18
Table 2: Village 1 Paperclip Activity Results.....	30
Table 3: Village 2 Paperclip Activity Results.....	39
Table 4: Village 3 Paperclip Activity Results.....	46
Table 5: Average Percentage of Time Spent by Men Across All Villages.....	54
Table 6: Average Percentage of Happiness from Men Across All Villages.....	54
Table 7: Average Percentage of Time Spent by Women Across All Villages.....	54
Table 8: Average Percentage of Happiness from Women Across All Villages.....	54

List of Figures

Figure 1: Location of Village 1, 2, and 3.....	19
Figure 2: Location of Village 1, 2, and 3 Zoomed.....	19
Figure 3: Cantril Ladder of Well-Being Ratings Village 1.....	32
Figure 4: Difference Between Time Spent and Happiness (%) Village 1.....	34
Figure 5: Cantril Ladder of Well-Being Ratings Village 2.....	41
Figure 6: Difference Between Time Spent and Happiness (%) Village.....	42
Figure 7: Cantril Ladder of Well-Being Ratings Village 3.....	48
Figure 8: Difference Between Time Spent and Happiness (%) Village.....	49
Figure 9: Time Spent and Happiness - Garden Work.....	56
Figure 10: Correlation Between Time Spent and Happiness (%) - Men.....	59
Figure 11: Correlation Between Time Spent and Happiness (%) - Women.....	61
Figure 12: Correlation Between Time Spent, Happiness and Cantril Ladder - Men.....	63
Figure 13: Correlations Between Time Spent, Happiness and Cantril Ladder - Women..	67
Figure 14: Average Self-Reported Happiness in Villages.....	71

Chapter I

Introduction

What is happiness and what factors contribute to it? This question has captivated psychologists, economists, and non-academics alike and the answers have taken many forms over the years. This paper focuses on one specific factor that contributes to happiness—time use—and examines the way in which individuals allocate time throughout a normal day and how these decisions affect happiness. Although an extensive amount of research has been done to assess the connection between happiness and money, little has been done to investigate the relationship between time and happiness.

Time is a limited resource that is present in all aspects of life and is found across all societies.¹ No one can acquire more than twenty-four hours per day. Inarguably, happiness is partly a consequence of the choices people make. So what can people do to be happier? Spend time wisely. As supported by Aristotelian logic, if one does the right thing, happiness will follow.² Normally, the average human has discretion in which activities he or she spends time on, however millions of people around the world who suffer from time poverty are unable to freely choose how to spend their time.

¹“Policy Applications of Time Use Data,” International Association for Time Use Research, Accessed January 30, 2016, <http://www.iatur.org/policy>.

² Alice LaPlante, “If Money Doesn’t Make You Happy, Consider Time,” Stanford Graduate School of Business, April 1, 2011, <https://www.gsb.stanford.edu/insights/if-money-doesn't-make-you-happy-consider-time>.

The goal of this thesis is to shed light on time use patterns, happiness, and gender in a niche area of the world in which very little time use and happiness research has been done—rural Uganda—where a larger number of people are suffering from time poverty. Through the exploration of time use patterns in rural Uganda, existing non-governmental, non-profit, and governmental organizations have the opportunity to better understand the communities in which they work and can, in turn, cater intervention programs towards the local populations on a personal level. Understanding the local population is paramount in the success of development interventions.

This study contributes to time allocation data in Sub-Saharan Africa in that it determines what activities are done on an average day, how much time is allocated to each activity, and how much happiness is experienced when doing each activity across three villages in rural Uganda. The goal is to determine what the differences are, if any, between men and women's time use patterns and happiness in these communities. Do women in rural Uganda spend more time doing things that make them happy or do men? How can the discrepancies between gender-differentiated time use patterns be used to prescribe interventions in hopes of alleviating time poverty in these communities of rural Uganda? This will be determined through a participatory rural appraisal, a semi-structured group discussion, and in-depth data analysis.

In the coming pages, the history of happiness research is explained as well as the evolution of the definition of happiness. Next, the indicators that contribute to happiness are explored, arriving at one main indicator that will be the focus of this paper—time use. Finally, the history and methods of time use research and how they relate to happiness research are introduced and placed in the context of three rural villages in Uganda.

History of Happiness in Public Policy

Happiness is considered to be the ultimate goal in life; it is a goal that transcends geographic location, religion, cultural norms, and age. The pursuit of happiness is central to human life. In the United States, the 1776 Declaration of Independence promised the right to the pursuit of Happiness, along with the rights to Life and Liberty, to each and every one of its citizens, no matter his or her gender, age, or religion; the rights to Life, Liberty and the pursuit of Happiness were held as equal rights for all citizens. At the time, the idea that a government would promise its citizens the right to pursue happiness was a radical idea. In fact, no other government declared this right to its citizens until the Kingdom of Bhutan's government did, 194 years later.³ Bhutan introduced the concept of Gross National Happiness into its own government for the well-being of its citizens. Bhutan's government is the only other government in the world, aside from the government of the United States to say that all of its citizens had an equal right to pursue happiness.⁴

Bhutan's Fourth King, Jigme Singye Wangchuck coined the term "Gross National Happiness" in the 1970s and the concept has thus been flushed out into an index used by the Kingdom of Bhutan to ensure a holistic approach to sustainable development within the country.⁵ It focuses on the balance between progress and non-economic aspects of

³ Brooks, *Gross*, 2.

⁴ Brooks, *Gross*, 2.

⁵ Centre for Bhutan Studies & GNH Research, "GNH Index" Accessed May 14, 2015, <http://www.grossnationalhappiness.com/articles/>.

well-being. The Gross National Happiness Index consists of four pillars—(1) good governance, (2) sustainable socio-economic development, (3) cultural preservation, and (4) environmental conservation—which are further categorized into nine domains—(1) psychological well-being, (2) health, (3) education, (4) time use, (5) cultural diversity and resilience, (6) good governance, (7) community vitality, (8) ecological diversity and resilience, and (9) living standards.⁶ This paper focuses on the fourth domain, time use, in the context of men and women in rural Uganda.

Throughout history, the inclusion of well-being in global policy has come and gone. Most recently, happiness catapulted into the forefront of global policy discussion when the United Nations held its first ever conference on happiness at the UN Headquarters in New York in 2012. The Kingdom of Bhutan hosted the conference; at this conference, representatives and leaders from all over the world gathered to discuss the importance of pushing the definition of human progress away from the widely accepted wealth-based definition and into a more all-inclusive well-being measurement.

One of the most important objectives of happiness research is to determine the factors that contribute to well-being, and to what extent. Happiness research aims to “determine quantitatively the relative importance of genetic, personality, socio-demographic, economic, cultural, and political factors.”⁷ According to Frey and Stutzer, is it useful to separate the determinants of happiness into five categories: (1) personality factors, (2) socio-demographic factors, (3) economic factors, (4) contextual and

⁶ Centre, “GNH.”

⁷ Frey, *Happiness: A Revolution*, 3.

situational factors, and (5) institutional factors.⁸ The inclusion of happiness research into global policy and economic theory has involved the merging of two very different disciplines—psychology and economics. Economist Bruno Frey goes as far as calling this new happiness movement a revolution in economics. While developing countries are often evaluated based on GDP and other economic indicators, these new metrics suggest that they should also be evaluated using measures of well-being. However, data is lacking on many developing countries, such that time use data from a country like Uganda fills a gap in the knowledge available on happiness around the world.

Definition of Happiness

Throughout history, the definition of happiness has taken many forms. For two thousand years, philosophers defined happiness in terms of virtue. Ancient Greek philosophers had a term—*eudemonia*—that literally translated to “good spirit,” which described the feeling that occurred when one lived a virtuous, moral, and meaningful life.⁹ According to the “Professor of Happiness” himself, Dan Gilbert, “for Socrates, Plato, Aristotle, Cicero, and even Epicurus (a name usually associated with piggish happiness), the only thing that could induce that kind of happiness was the virtuous performance of one’s duties.”¹⁰

The definition of happiness has evolved over time, with many psychologists providing their own modified definitions of happiness. It is important to note that the terms ‘happiness’, ‘well-being’, and ‘life satisfaction’ are used interchangeably within

⁸ Frey, *Happiness & Economics*, 10.

⁹ Daniel Gilbert, *Stumbling on Happiness* (New York: Vintage Books, 2006), 38.

¹⁰ Gilbert, *Stumbling*, 39.

happiness research literature. Psychologists and philosophers have classified happiness into three forms. The first form is described as “fleeting feelings of happiness” which includes feelings such as joy and euphoria.¹¹ The next kind of happiness is described as “happiness on balance,” or “the assessment of the good and bad in our lives, the emotional balance sheet we keep that allows us to tell honestly whether we are living, all things considered, a happy life.”¹² The last form of happiness is “moral quality of life,” which is described as a “well-lived life.”¹³

Many economists and policymakers have been skeptical about the inclusion of happiness in economic research and global policy due to the number of definitions that exist. However, it is important to not get lost in the sea of definitions of happiness. Scholars point out that the definition of happiness is not what is important; it is whether or not each individual identifies himself or herself as being happy. As Frey and Stutzer say, “instead of trying to determine what happiness is from outside, one can ask the individuals how happy they feel themselves to be.”¹⁴ Each individual is thought to be the best judge of his or her own happiness.

In addition to the unresolved debate on the definition of happiness, psychologists and philosophers have worked tirelessly to quantify and measure happiness throughout the years. Somewhere along the way, economic measures, and only economic measures, became the accepted indicator to inform policymakers and governments on how well they

¹¹ Arthur C. Brooks, *Gross National Happiness: Why Happiness Matters for America—and How We Can Get More of It* (New York: Basic Books, 2008), 4.

¹² Brooks, *Gross*, 4-5.

¹³ Brooks, *Gross*, 5.

¹⁴ Bruno S. Frey, and Alois Stutzer, *Happiness & Economics: How the Economy and Institutions Affect Human Well-Being* (Princeton: Princeton University Press, 2002), 4.

were doing in creating a happy society. Within economics, well-being is usually referred to as *utility*, which is defined as “the satisfaction that a person experiences from the consumption of goods.”¹⁵ In the 1930s, traditional economics viewed happiness as something that could not be measured. However, utility was something that was objectively observable, therefore measureable. It is only recently that economists have begun to weight in again on the subject of happiness and how it can and should be measured. Psychologists have played a large role in convincing economists that subjective measures of well-being are also significant in economic theory and policy creation.

The majority of happiness research is conducted through the use of questionnaires that ask the individual if he or she perceives him or herself to be happy. This is defined in psychology as “reported subjective well-being,” or “an individual’s evaluation of the extent to which he or she experiences positive and negative affect, happiness, or satisfaction with life.”¹⁶ This paper will focus on the reported subjective well-being definition of happiness, as described above. Specifically, the Cantril Ladder of Well-Being Scale question, developed by the groundbreaking social researcher Dr. Hadley Cantril, will be used to measure the overall self-reported happiness of individuals within three villages across rural Uganda. The Cantril Ladder question asks individuals the following: “Please imagine a ladder with steps numbered from zero at the bottom to ten at the top. The top of the ladder represents the best possible life for you and the bottom of the ladder represents the worst possible life for you. On which step of the ladder would

¹⁵ Ed Diener, Richard E. Lucas, Ulrich Schimmack, and John F. Helliwell, *Well-Being for Public Policy* (Oxford: Oxford University Press, 2009), 11.

¹⁶ Bruno S. Frey, *Happiness: A Revolution in Economics* (Cambridge: The MIT Press, 2008), 3.

you say you personally feel you stand at this time?”¹⁷ As well, participants of the study, described later in the thesis, will be asked to describe their self-reported happiness experienced while engaging in a number of activities.

The Cantril Ladder question was chosen as the appropriate measuring tool for self-reported happiness within villages for a number of reasons. First, the largest publication of happiness measures, the World Happiness Report, utilizes and trusts the Cantril Ladder Question to produce accurate and significant data regarding subjective well-being. With data from over 198 countries, the World Happiness Report uses the responses from this particular question to determine the happiness levels of individuals across the globe.¹⁸ The Happy Planet Index, a widely used and reliable happiness index, also uses the Cantril Ladder scale in order to measure the experienced well-being of individuals in 151 countries across the globe.¹⁹ This study follows the example of the two above comprehensive and well-respected happiness reports by also adopting the Cantril Ladder question as the appropriate indicator of reported subjective well-being.

Happiness Indicators

It is undisputed that economic prosperity plays a key role in the overall well-being of individuals and countries. With higher income, come more opportunities to attain desired goods, services, and experiences. Also, people with good economic well-being

¹⁷ "Understanding How Gallup Uses the Cantril Scale," Gallup, Accessed January 12, 2016, <http://www.gallup.com/poll/122453/understanding-gallup-uses-cantril-scale.aspx>.

¹⁸ John Helliwell, Richard Layard, and Jeffrey Sachs, eds, *World Happiness Report 2015* (New York: Sustainable Development Solutions Network) Accessed May 21, 2015. <http://worldhappiness.report/wp-content/uploads/sites/2/2015/04/WHR15.pdf>

¹⁹ Happy Planet Index, "The Data," Accessed March 16, 2015, <http://happyplanetindex.org/data/>

have a higher status in society. In general, the citizens of rich countries are happier than the people living in poor countries.²⁰ According to Frey, the relationship between happiness and income, when evaluated using both simple regressions and multiple regressions, is statistically significant, which means money does buy happiness to a certain extent.²¹

However, there is more depth to well-being than just the accumulation of material goods and monetary assets. Studies suggest a relationship between income and happiness that is not linear; as income increases, happiness increases at a slower and slower rate. Once a certain threshold is reached and basic human needs are met, “additional income does not increase happiness ad infinitum.”²² The relationship between income and happiness is not linear but rather one that offers diminishing marginal returns.²³ At low levels of development, income provides happiness, but “once a threshold of approximately \$10,000 is reached the average income level in a country has little effect on average subjective well-being.”²⁴ For example, despite massive economic prosperity in the West, people are reportedly no happier.²⁵ This is called the Easterlin Paradox, a phenomenon where higher economic well-being is positively associated with happiness.²⁶ However when observing the relationship, happiness changes very little over time. The

²⁰ Frey, *Happiness & Economics*, 9.

²¹ Frey, *Happiness: A Revolution*, 27.

²² Frey, *Happiness: A Revolution*, 29.

²³ Frey, *Happiness: A Revolution*, 29.

²⁴ Frey, *Happiness: A Revolution*, 42.

²⁵ Bruno S. Frey, and Alois Stutzer, *Economics and Psychology: A Promising New Cross-Disciplinary Field* (Cambridge: The MIT Press, 2007), 155.

²⁶ Frey, *Happiness: A Revolution*, 11.

three main reasons for this phenomenon are: 1) “a person’s happiness is negatively affected by the incomes of others (a negative externality),” 2) “a person’s happiness adapts quite rapidly to higher levels of income (a phenomenon of addiction,” and 3) “our tastes are not given—the happiness we get from what we have is largely culturally determined.”²⁷

Furthermore, GDP is usually the measurement used to determine economic well-being, however the measurement of GDP alone is not adequate enough to measure the full scope of the economic well-being of a country. GDP is defined as “the monetary value of all goods and services bought and sold in an economy.”²⁸ This means that only things that are legally traded and tracked are included in this measurement, which leaves a black market and household activities that are unaccounted for. GDP also accounts for negative aspects of society, such as cigarette advertising. In a speech at the University of Kansas on March 1968, Robert F Kennedy said “too much and for too long, we seemed to have surrendered personal excellence and community values in the mere accumulation of material things...Gross National Product counts air pollution and cigarette advertising [...]”²⁹ It is clear that GDP measures goods and services exchanged in a formal economy, but it does not measure happiness.³⁰

²⁷ Frey, *Economics and Psychology*, 155.

²⁸ Mark Anielski, *The Economics of Happiness: Building Genuine Wealth* (Gabriola Island: New Society Publishers, 2007), 28.

²⁹ Robert F. Kennedy, “Remarks at the University of Kansas,” John F. Kennedy Presidential Library and Museum, Speech, Accessed May 21, 2015, <http://www.jfklibrary.org/Research/Research-Aids/Ready-Reference/RFK-Speeches/Remarks-of-Robert-F-Kennedy-at-the-University-of-Kansas-March-18-1968.aspx>.

³⁰ Peter Marber, *Brave New Math: Information, Globalization, and New Economic Thinking in the 21st Century*, (New York: World Policy Institute, 2014), 13.

Aside from economic well-being, there are hundreds of factors that have an impact on happiness, ranging from health and education to safety and social well-being. As stated earlier, this paper focuses on one specific factor that is known to impact happiness—time use. Specifically, in an area in which economic well-being is not a reality, such as rural Uganda, time use plays a more important role in identifying what contributes to happiness in those communities.

Time Use

Time use research is an interdisciplinary field of study that seeks to understand the ways in which people spend their days. Time use research tackles a variety of social, political, economic, and cultural issues across populations, shedding light on issues such as time poverty and gender inequality within the scope of time.³¹ Currently, time use is tracked based on the amount of time spent on different activities “but the evaluation and grouping of those activities is decided by external researchers and coders” who decide which activities are enjoyable and which are not.³² However, new approaches to time allocation data collection are increasingly incorporating the concept of evaluated time use, or “evaluating different uses of time based on the population’s own evaluations of their emotional experiences.”³³

A main objective of time use research is to investigate work-life balance in different communities around the world. Within in time use research, there are two

³¹“Policy,” International.

³²Alan B. Krueger et al., *Measuring the Subjective Well-Being of Nations: National Accounts of Time Use and Well-Being*, ed. Alan B. Krueger (Chicago and London: University of Chicago Press, 2009), 11.

³³ Krueger, *Measuring*, 11.

methods of defining and measuring work, the first being the System of National Accounts, most recently revised in 1993, which is the “internationally agreed standard set of recommendations on how to compile measures of economic activity.”³⁴ SNA has been designed to work with countries with all different stages of economic development and is the basis for calculating GDP. All activities either fall into productive (market) or reproductive (household) work. SNA separates work into three categories: formal and informal market work and non-market subsistence work for production of goods.³⁵ However, SNA fails to account for activities that contribute to the “household economy,” or the activities that are done within the household that don’t necessarily hold a monetary value, yet are paramount to the survival of the household.³⁶ Due to this omission, SNA would be inadequate in fully assessing the work-life balance in rural Uganda, as much of the economic activities are done within the household and not accounted for within this system.

The second method of measuring work is through time-use surveys, time diaries, and number of other time data collection tools. In developed countries, time use surveys are used as a complement to official statistics, which are already a fairly accurate account of market activities, by introducing data on time spent on activities such as leisure, caring

³⁴ "About the SNA," The System of National Accounts (SNA), Accessed February 12, 2016. <http://unstats.un.org/unsd/nationalaccount/sna.asp>.

³⁵ C. Mark Blackden, and Quentin Wodon, eds, *Gender, Time Use, and Poverty in Sub-Saharan Africa*, World Bank Working Paper No. 73 (Washington, D.C., International Bank for Reconstruction and Development/The World Bank, 2006), 14.

³⁶ Blackden and Wodon, *Gender*, 2.

for the sick, and household work.³⁷ However in developing countries, specifically in Sub-Saharan Africa, a disproportionate amount of productive activity occurs within the household that is not entirely captured by official statistics. Therefore, “the design, methodology, and implementation of time use surveys in Sub-Saharan Africa require special attention to the region’s circumstances.”³⁸ The use of a participatory rural appraisal in this study ensured a sensitive approach to data collection while keeping in mind these discrepancies.

In Sub-Saharan Africa, both men and women play multiple roles in society, however women usually must play these roles simultaneously, whereas men are able to separate each role as an individual task.³⁹ There are certain roles and responsibilities that demand the use of the inherently scarce resource of time and allow little room for the use of time for leisure purposes. In fact, “there is a bidirectional relationship between time’s scarcity and its value: not only does having little time make it feel more valuable, but when time is more valuable, it is perceived as more scarce” This is described as time poverty. The term time poverty represents a faction of the larger subject of poverty. Like happiness, the definition of poverty has strayed away from the solely economic definition and is now seen as “multidimensional, encompassing both income/consumption dimensions and other dimensions relating to human development outcomes, insecurity, vulnerability, powerlessness, and exclusion.”⁴⁰ As such, time poverty is a concept that

³⁷ C. Mark Blackden, and Quentin Wodon, eds, *Gender, Time Use, and Poverty in Sub-Saharan Africa*, World Bank Working Paper No. 73 (Washington, D.C., International Bank for Reconstruction and Development/The World Bank, 2006), 1.

³⁸ Blackden and Wodon, *Gender*, 24.

³⁹ Blackden and Wodon, *Gender*, 1.

⁴⁰ Blackden and Wodon, *Gender*, 13.

falls under the umbrella of poverty and has become a major focus of time use research and happiness.

In countries like Uganda, women disproportionately suffer from time poverty, as they are usually the heads of the households and are responsible for completing countless duties throughout their average days, often times too overworked and overwhelmed to accomplish all of the tasks.⁴¹ Due to this phenomenon, “women’s labor time and flexibility are therefore much more constrained than in the case of men.”⁴² Because of this imbalance in responsibilities, this study will differentiate time use into the different roles of men and women in order to truly understand how time use impacts happiness.

As poverty alleviation is a universal goal, organizations and policymakers are constantly looking for ways to improve intervention mechanisms and programs in order to better suit the local population and, in turn, create more sustainable, effective change in the communities. The United Nations, in 2015, declared the following as the number one Sustainable Development Goal: “End poverty in all its forms everywhere.”⁴³ What is shown by existing time use data is that there are differences in gender time use patterns and these differences create an obstacle for development and poverty alleviation in Sub-Saharan Africa.⁴⁴ More streamlined data collection methods and careful analysis, although costly and time-consuming, result in more successful and sustainable interventions in these regions. “Addressing time poverty in a way that speaks to these

⁴¹ Blackden and Wodon, *Gender*, 1.

⁴² Blackden and Wodon, *Gender*, 1.

⁴³ “Sustainable Development Goals,” Sustainable Development Knowledge Platform, Accessed February 10, 2016, <https://sustainabledevelopment.un.org/?menu=1300>.

⁴⁴ Blackden and Wodon, *Gender*, 26.

gendered differences therefore needs to be integral to strengthening poverty reduction strategies (PRSs).”⁴⁵

⁴⁵ Blackden and Wodon, *Gender*, 27.

Chapter II

Methods

In order to gain a better understanding of the way in which rural communities in Uganda spend their days and to determine how happy the day-to-day activities make the men and women of these communities, a study was conducted in three different villages across the country. The method used for this particular study was participatory rural appraisal (PRA). PRA is a label that represents a growing number of participatory methods and approaches that utilize local knowledge and allow local people to complete their own appraisal, analysis, and plans to tackle community issues.⁴⁶

Participatory Rural Appraisal

The five key tenets of PRA include the following: participation, teamwork, flexibility, optimal ignorance, and triangulation.⁴⁷ The guidelines for participation stress the importance of local people's input into PRA activities, which gives PRA its value as a research and planning method and as a way to disperse the participatory approach to development.⁴⁸ Within this particular study, the study subjects were asked to use their own knowledge of the activities they spend their days doing, report their own perceived

⁴⁶ Social Analysis, "Participatory Rural Appraisal," The World Bank, Accessed January 30, 2016, <http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTSOCIALDEV/0,,contentMDK:21233809~menuPK:3291499~pagePK:64168445~piPK:64168309~theSitePK:3177395~isCURL:Y~isCURL:Y,00.html>

⁴⁷ Social, "Participatory."

⁴⁸ Social, "Participatory."

level of happiness that comes from these activities, and have a group discussion about certain time use trends in their communities.

The subjects of the study were participants of Village Enterprise, a microenterprise development NGO that targets those living in extreme poverty (less than \$1.25 a day) in Uganda and Kenya and equips them with the tools necessary to start small sustainable businesses and savings groups.⁴⁹ All of the participants have been specifically targeted and identified by Village Enterprise as living in extreme poverty. Village Enterprise utilizes a number of poverty indicators when targeting the desired population. First, the Progress Out of Poverty Index (PPI) is calculated. PPI is a poverty measurement tool used by organizations and businesses whose mission is to help impoverished communities.⁵⁰ The 10-question survey includes questions about a household's characteristics and assets and the answers are then scored to calculate the likelihood that the household is living under the poverty line. Village Enterprise uses PPI scores in order to find the most vulnerable households in rural Uganda and Kenya.

After the first round of filtering, Village Enterprise conducts a Poverty Wealth Ranking (PWR) exercise within the villages that have the lowest PPI scores. Village leaders are brought together and asked a number of questions about the demographics of their community. The village is broken up into four categories—rich, moderate, poor, and very poor—and the village leaders are asked to list things that would be found in a household in each of the categories. For example, a rich household would own a

⁴⁹ "What We Do," Village Enterprise, Accessed January 29, 2016.
<http://villageenterprise.org/what-we-do/>.

⁵⁰ Uganda PPI, "Progress Out of Poverty," Accessed January 27, 2016,
<http://www.progressoutofpoverty.org/country/uganda>.

motorcycle and a very poor household would not have any form of transportation. Once the village leaders define each category, they are asked to place each household in the village into one of the four categories. Village Enterprise then goes door to door to all of the “poor” and “very poor” households and asks them whether or not they would like to be part of the Village Enterprise program.

Once the households are targeted and asked to join the Village Enterprise program, the households that agree to participate send the household heads, aged eighteen and above, to meet in groups called Business Savings Groups, consisting of forty-five individuals. This particular study was conducted within three Business Savings Groups (131 individuals total) across three districts of Uganda. The Business Savings Groups (BSGs) are comprised of fifteen Small Business Groups (SBGs), containing three individuals each. The three villages were randomly selected from a Village Enterprise database of all the active BSGs in or near Soroti District during November and December of 2015. Highly trained Village Enterprise business mentors translated the study activities and directions from English to the local language. Table 1, Figure 1, and Figure 2 below showcase the distribution of participants across rural Uganda and study details.

Table 1: Study Location, Data, and Scope

Village #	District	Sub-County	Village	Date	# of Men	# of Women	Total
1	Soroti	Kamuda	Kakere	Nov. 24, 2015	13	30	43
2	Kumi	Ongino	Oseera	Dec. 9, 2015	23	20	43
3	Ngora	Kobwui	Koidike	Dec. 10, 2015	8	37	45

Figure 1: Location of Village 1, 2, and 3

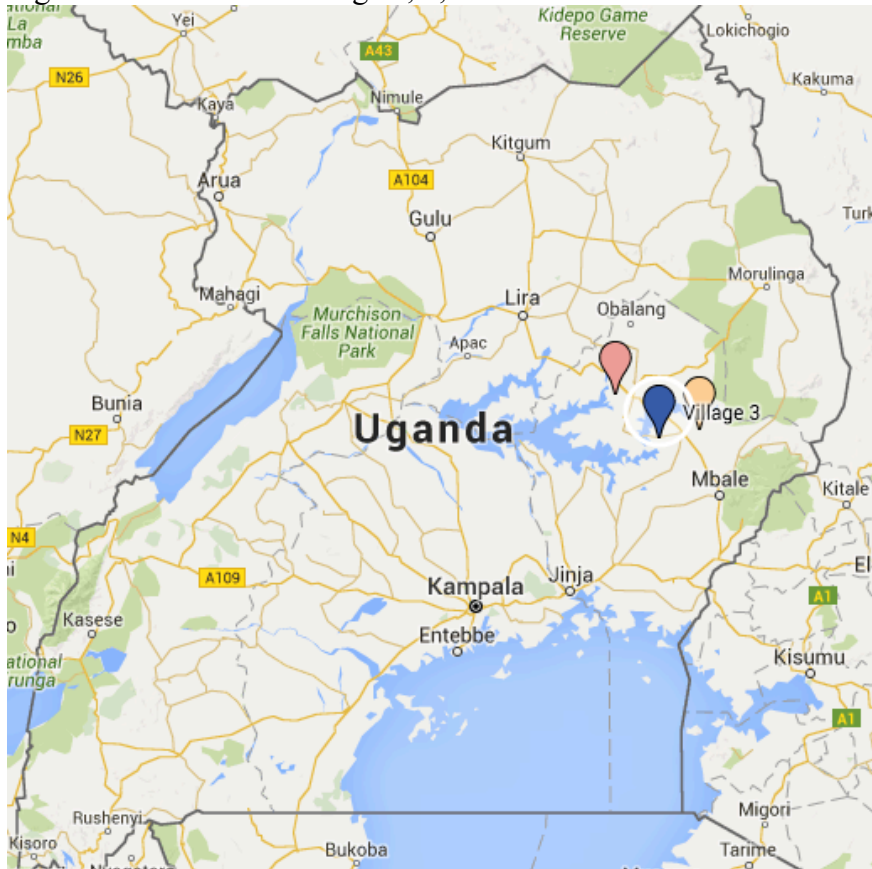


Figure 2: Location of Village 1, 2, and 3 Zoomed



The groups were assembled without having any prior knowledge about the study. Once the Business Savings Groups were mobilized, the first activity was explained to them. First, the Business Savings Groups were instructed to split up into their Small Business Groups and each SBG was given a piece of paper and a pen. They were then asked to brainstorm and come up with a list of fifteen activities that they spend time doing on an average day. Once each of the Small Business Groups formed a list of fifteen activities, the Business Savings Group came together as a whole to develop a list of twenty-five of the most frequently mentioned activities on their lists. The master list of twenty-five activities was generated by doing the following: first, each group was asked what the first activity on their list was; next, the rest of the groups were asked to raise their hands if they also had that same activity on their list. Then the total number of groups that had listed that activity was recorded.

This process was repeated with the second activity on each group's list and so on. Eventually, an all-inclusive list was created with all of the activities from each group's list. Only the most frequently mentioned activities were included in the final list of twenty-five activities. Two small paper bags were labeled with each activity, with a total of two sets of twenty-five labeled bags.

Then, each participant was given two bags of paperclips, with fifty paperclips in each bag. Men received pointy paperclips and women received round paperclips in order to distinguish the responses based on gender. The participants were told to keep the bags of paperclips in their pockets or hands at all times, so as not to accidentally swap the types of paperclips between genders.

The first set of labeled bags was set up in a row in front of the group. The next activity went as follows: “This group of paperclips represents time. It is the amount of time you have in an average day, which is a total of twenty-four hours. Please take the paperclips and place them in the bags labeled with different activities based on how much time you spend on that activity on an average day.” The group formed a line and began placing the paperclips in the different bags based on how much time they spend on each activity on an average day. Once all forty-five individuals had completed this exercise, the bags were taken away and labeled with the word “time” in order to differentiate them from the next set of bags.

Next, the second set of twenty-five paper bags was placed in the same order in the front of the group. Each participant used their next bag of paperclips to complete the following: “This group of paperclips represents happiness. Take the paperclips and place them in each bag labeled with a different activity based on how much you enjoy the activity.” Once all forty-five individuals completed the activity, the bags were taken away and labeled with the word “happiness.”



Images of participants engaging in Participatory Rural Appraisal in rural Uganda.



On the piece of paper given to the groups earlier, each person was asked the Cantril Ladder of Well-Being Question: “Please imagine a ladder with steps numbered from zero at the bottom to ten at the top. The top of the ladder represents the best possible life for you and the bottom of the ladder represents the worst possible life for you. On which step of the ladder would you say you personally feel you stand at this time?”⁵¹ Next to each individual’s response, an “M” for male or “F” for female was written in order to distinguish the difference between male and female self-reported well-being measures. Following the completion of this exercise, the papers were collected from all of the groups.

Following the completion of the above activities, an unstructured group discussion took place. The discussion began with the following question: “What would make your life happier?” The following questions were asked after a brief scan of the responses to the Cantril Ladder of Well-Being Question: “For those of you who rated your happiness level at a “0” on the ladder scale, why did you choose this number?” and “For those of you who rated your happiness level at a “10” on the ladder scaled, why did you choose this number?” The rest of the discussion consisted of a combination of the following questions as well as some additional questions based on the responses to these questions: “What differences, if any, did you observe between men and women and the activities they spend their time on?” “Why do you think these differences exist?” “I noticed that more men than women do [this] activity, why is that?” “I noticed that you spend much of your time doing [this] activity, yet you don’t enjoy it at all, why is that?” The full transcript of the group discussions for each village can be found in Appendix A.

⁵¹ "Understanding," Gallup.

The goal when choosing this study method was to allow the participants an opportunity to discuss time use trends, happiness, and gender differences within their village in an open and unstructured setting. As mentioned above, participation is a key aspect of the participatory rural appraisal method of research. Also, teamwork is one of the five tenets of participatory rural appraisals and it was showcased through the team exercises where the small business groups and business savings groups worked together to brainstorm the main activities that comprise their days. Next, flexibility was practiced throughout the study by allowing the lists of activities, the distribution of paperclips into the bags, and the group discussions to be determined by the participants themselves, with very limited direction. The tenet of optimal ignorance, or the need to be “efficient in terms of both time and money [and intending] to gather just enough information to make the necessary recommendations and decisions” was met during this study when a limited amount of resources and time were used in order to conduct the exercises.⁵² Lastly, the fifth and final tenet of triangulation, or the need for at least three sources to be consulted or techniques to be used to investigate the same topic, was met during the analysis stage of the study data.⁵³

Data Analysis

As this study was an exclusively exploratory one where variables were not altered, analysis of the data focuses on the differences between the amount of time spent on activities and the amount of happiness derived from the activities. Further, the

⁵² Social, “Participatory.”

⁵³ Social, “Participatory.”

correlations between the different data sets were extensively analyzed in order to understand the relationship between happiness and certain activities.

Once the above study was completed, the paperclips from the two exercises were counted and divided by the total number of paperclips, arriving at a percentage for each category. For example, if sixty men's paperclips were found in the "percentage of time spent on garden work" bag and there were a total of 649 paperclips found in all of the bags, the percentage of time spent on garden work for men was calculated to be 9.24%. This process was repeated for the time spent on each activity and the happiness felt from each activity for men and women.

Then, the amount of time spent by men and women on labor activities versus non-labor activities was calculated in order to understand the gender-differentiated time use patterns with the villages. This was done by separating the twenty five activities mentioned within each village into either labor or non-labor activities and then adding up the percentages of time spent on each of those activities in order to arrive at a total percentage of time spent on labor activities and non-labor activities. This was done for each village separately. It was also done for fifteen activities that were mentioned across all three villages and an average percentage of time spent for each activity was calculated for both men and women in order to determine whether men or women spend more time on labor activities.

Next, the percentage difference between percentage of time spent on an activity and the percentage of happiness felt from that activity was calculated for each activity for men and women. For example, if 7.86% of time was spent on bathing and 6.29% of happiness was felt from bathing, the difference between the two percentages was

calculated to be -1.57%. These percentage differences were then plotted on a graph to show which activities had the largest differences between time spent and happiness. These calculations helped to determine whether men and women engage in more activities where they are spending more time doing them than the happiness felt while doing them or if they spend their days doing activities that bring them more happiness than the time they spend on them.

Following the calculation of the differences in percentage between time spent and happiness, the fifteen activities found across all three villages were ranked. One ranking was done for the average time spent on the fifteen activities by men and another ranking was done for the average time spent on the fifteen activities by women. As well, a ranking was created for the average amount of happiness associated with each of the fifteen activities for men and women.

Next, the correlations between the percentage of time spent and percentage of happiness felt from doing each activity were calculated and analyzed for both men and women. Also, the correlations between the percentage of time spent and the average self-reported happiness, based on the Cantril Ladder of Well-Being Question responses, were calculated for both men and women. These correlations shed light on the relationship between the activities and the happiness felt from them.

Lastly, a comparison was done between the average self-reported happiness levels of each village (responses to the Cantril Ladder of Well-Being Question) and the average national Ugandan happiness score, as calculated by leading happiness research outlets.

Chapter III

Results

The study findings discussed in the next section provide an analysis of data necessary to push forward policies that would improve the well-being of the people of rural Uganda in terms of time use and gender equality. Correlations found between happiness, time use and gender in these three rural villages may have wider implications to the surrounding areas within Uganda and even across rural African communities. And, in turn, the new data may allow organizations and businesses operating in Uganda to have a better understanding of the population when creating and implementing poverty alleviation programs.

The data gathered from the participatory rural appraisal will be presented and analyzed using a number of different methods. First, the data collected within each of the three villages will be presented individually, starting with the percentage of time spent and percentage of happiness experienced from each activity. Next, the percentage difference between time spent and happiness from each activity will be calculated. Finally, the data from all of the villages will be analyzed together in order to uncover trends that may be found across the villages.

Village 1 Results

The first portion of the study was conducted in the district of Soroti, in the sub-county of Kamuda, in the village of Kakere, where the local language spoken is Kumam.

A small percentage of the community speaks and understands English. Two Village Enterprise employees, Maurice Eriaku and Catherine Ameso, translated the study instructions and activities from English to Kumam.

Each of the fifteen small business groups came up with a list of fifteen activities that they spend their average day doing. The business savings group then came together to come up with a list of the top twenty-five activities that comprise their days. Table 2, below, shows the distribution of men's paperclips and women's paperclips based on the question asked. The percentage of time spent on each activity and the percentage of happiness experienced from each activity is listed in parenthesis next to the number of paperclips. The number next to the activity represents how many of the small business groups had listed that activity.

Table 2: Village 1 Paperclip Activity Results

	VILLAGE 1	How much time do you spend on each activity in a normal day?		How much do you enjoy this activity? How happy does it make you?	
		Men	Women	Men	Women
1	Garden Work (15)	60 (9.64)	167 (11.28)	84 (12.88)	197 (14.15)
2	Bathing (15)	51 (7.86)	97 (6.55)	41 (6.29)	141 (10.13)
3	Eating (14)	43 (6.63)	102 (6.89)	82 (12.58)	111 (7.97)
4	Washing Utensils (12)	22 (3.34)	99 (6.68)	7 (1.07)	59 (4.24)
5	Sweeping the Compound (11)	25 (3.85)	91 (6.14)	17 (2.61)	54 (3.88)
6	Cooking (11)	11 (1.69)	98 (6.62)	10 (1.53)	105 (7.54)
7	Praying (10)	49 (7.55)	88 (5.94)	76 (11.67)	120 (8.62)
8	Fetching Water (10)	18 (2.77)	85 (5.74)	14 (2.15)	59 (4.24)
9	Grazing Animals (10)	31 (4.78)	36 (2.43)	35 (5.37)	11 (0.79)
10	Brushing Teeth (8)	33 (5.08)	73 (4.93)	24 (3.68)	42 (3.02)
11	Sleeping (8)	34 (5.24)	90 (6.08)	31 (4.75)	68 (4.89)
12	Collecting Firewood (8)	8 (1.23)	56 (3.78)	0 (0)	39 (2.8)
13	Washing Clothes (8)	17 (2.62)	41 (2.77)	9 (1.38)	55 (3.95)
14	Bathing Children (8)	7 (1.08)	42 (2.84)	2 (0.31)	29 (2.08)
15	Washing Face (7)	36 (5.55)	43 (2.9)	26 (3.99)	9 (0.65)
16	Doing Business/Savings (6)	40 (6.16)	38 (2.57)	34 (5.21)	58 (4.17)
17	Buying Food from Market (5)	27 (4.16)	43 (2.9)	25 (3.83)	18 (1.29)
18	Resting (5)	17 (2.62)	24 (1.62)	5 (0.77)	16 (1.15)
19	Using the Restroom (4)	13 (2)	31 (2.09)	11 (1.69)	32 (2.3)
20	Fishing (3)	48 (7.4)	21 (1.42)	64 (9.82)	6 (0.43)
21	Hunting (3)	5 (0.77)	12 (0.81)	5 (0.77)	0 (0)
22	Taking Children to School (3)	9 (1.14)	31 (2.09)	15 (2.3)	54 (3.88)
23	Listening to the Radio (2)	19 (2.93)	25 (1.69)	8 (1.23)	28 (2.01)
24	Teaching Children to Pray (1)	11 (1.69)	38 (2.57)	12 (1.84)	81 (5.82)
25	Milking Animals (1)	15 (2.31)	10 (0.68)	15 (2.3)	0 (0)
TOTAL		649	1,481	652	1,392

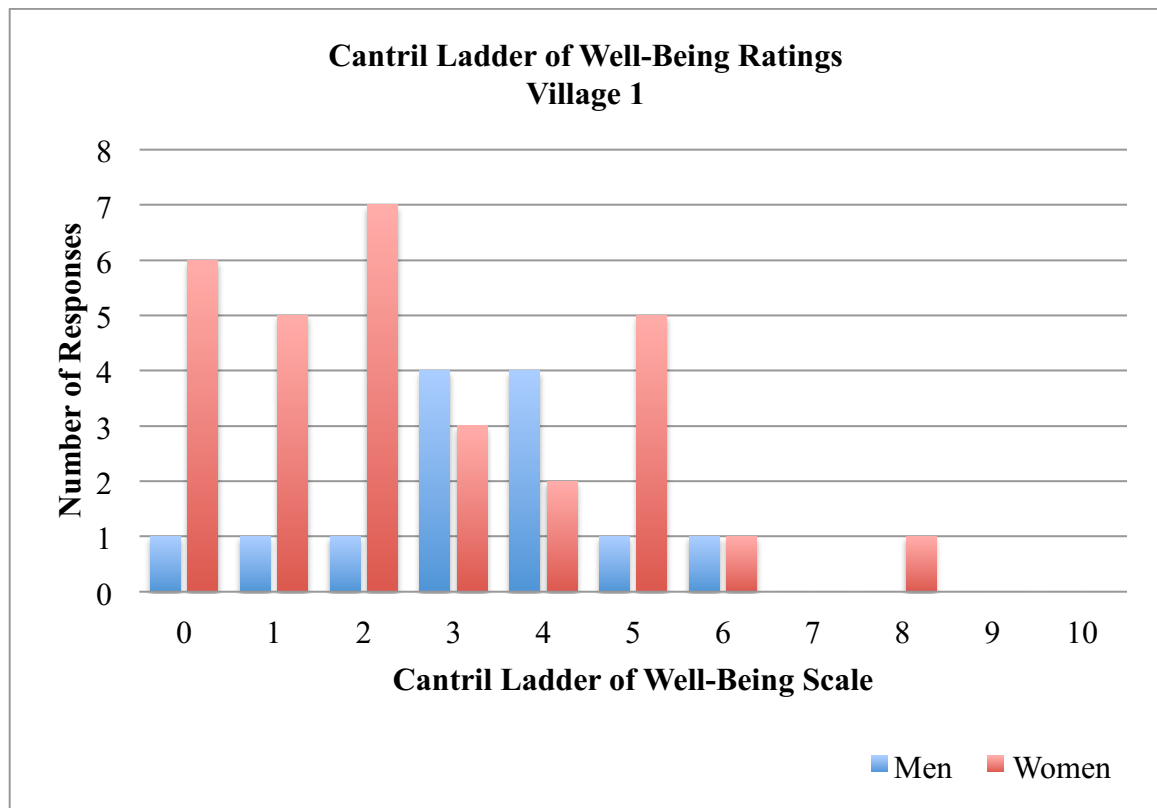
Labor versus Non-Labor Activities. Within Village 1, there were sixteen activities that fell under the labor activity category and nine activities that fell under the non-labor activity category. Labor activities included the following: 1) garden work, 2) washing

utensils, 3) sweeping compound, 4) cooking, 5) fetching water, 6) grazing animals, 7) collecting firewood, 8) washing clothes, 9) bathing children, 10) doing business/savings, 11) buying food from market, 12) fishing, 13) hunting, 14) taking children to school, 15) teaching children to pray, and 16) milking animals. Men spent 54.63% of their time on labor activities on an average day, whereas women spent 61.32% of their time on labor activities (a 6.69% difference).

Non-labor activities included the following: 1) bathing, 2) eating, 3) praying, 4) brushing teeth, 5) sleeping, 6) washing face, 7) resting, 8) using the restroom, 9) listening to the radio. Men spent 45.46% of their time on non-labor activities on an average day, whereas women spent 38.69% on non-labor activities (6.77% difference).

Cantril Ladder of Well-Being Scale Ratings. After the above activities were completed, the participants were asked the Cantril Ladder of Well-Being Scale Question. Figure 3 shows the distribution of the forty-three responses. The blue bars represent the men's responses and the red bars represent the women's responses.

Figure 3: Cantril Ladder of Well-Being Ratings Village 1



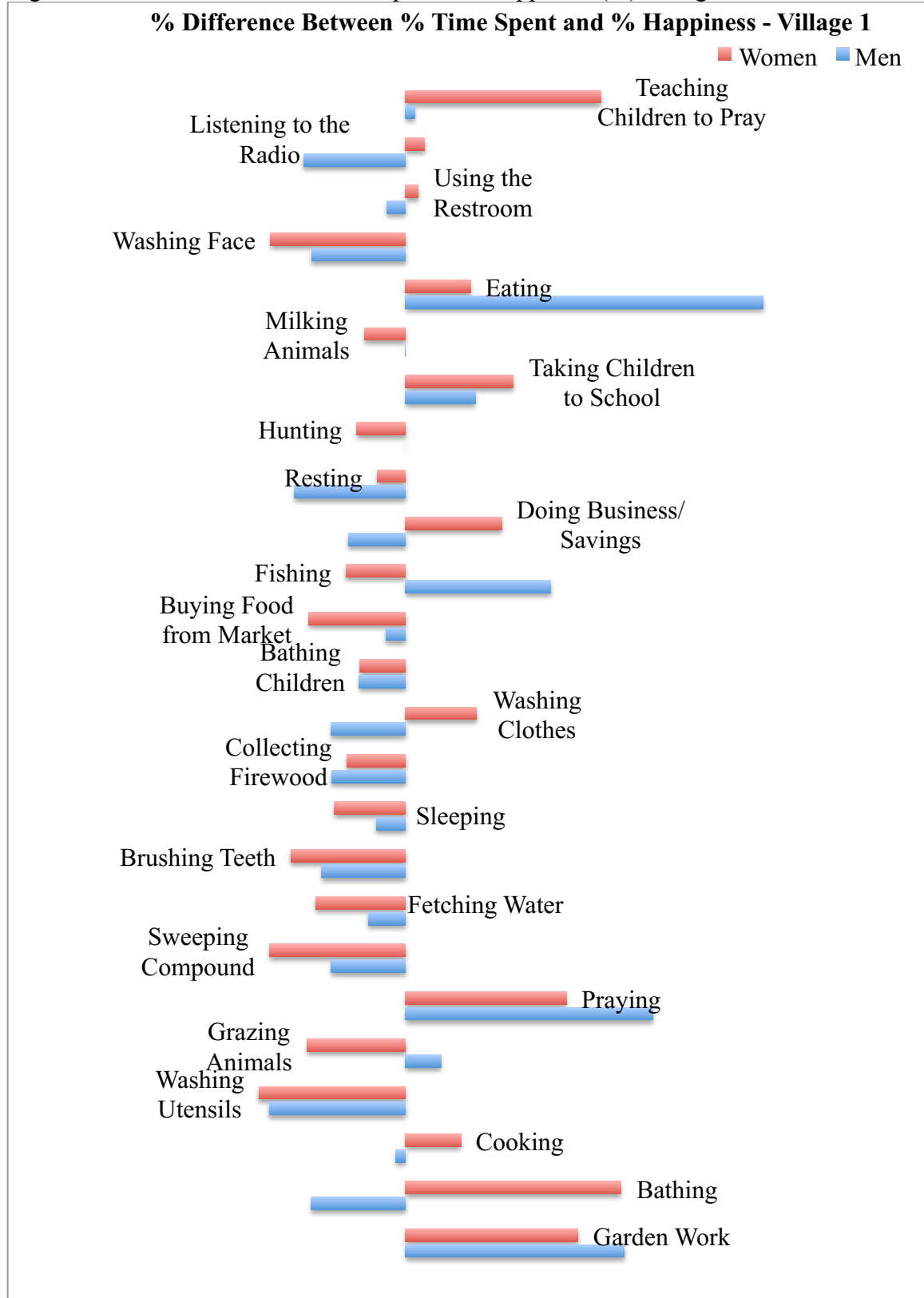
The average Cantril Ladder of Well-Being rating for men in Village 1 was 3.231.

The average Cantril Ladder of Well-Being rating for women in Village 1 was 2.5.

Difference Between Time Spent and Happiness. Figure 4, below, shows the difference between the percentage of time spent on each activity and the percentage of happiness that comes from engaging in that activity. The blue bars represent men and the red bars represent women within Village 1, Kakere. The bars extending to the right are positive values and represent the activities that bring more happiness than the amount of time

spent on them. The bars extending to the left are negative values that represent activities that produce less happiness than the amount of time spent doing them.

Figure 4: Difference Between Time Spent and Happiness (%) Village 1



According to the data, there are seven activities that men spend their time doing where the percentage of happiness from the activity is greater than the percentage of time spent doing the activity, leading to a positive percentage difference. The seven activities, from most percentage difference to least percentage difference, include the following: 1) eating (5.95%), 2) praying (4.12%), 3) garden work (3.64%), 4) fishing (2.42%), 5) taking children to school (1.16%), 6) grazing animals (0.59%), 7) teaching children to pray (0.15%). Hunting has a 0% difference.

On the other hand, there are seventeen activities that men spend their time doing where the percentage of happiness from those activities is less than the percentage of time spent doing the activity. Included in this category are the following activities, from most percentage difference to least percentage difference: 1) washing utensils (-2.27%), 2) resting (-1.85%), 3) listening to radio (-1.7%), 4) bathing (-1.57%), 5) washing face (-1.56%), 6) brushing teeth (-1.4%), 7) sweeping compound (-1.24%), 8) washing clothes (-1.24%), 9) collecting firewood (-1.23%), 10) doing business/savings (-0.95%), 11) bathing children (-0.77%), 12) fetching water (-0.62%), 13) sleeping (-0.49%), 14) buying food from market (-0.33%), 15) using the restroom (-0.31%), 16) cooking (-0.16%), and 16) milking animals (-0.01%).

There are eleven activities that women spend their time doing where the percentage of happiness from those activities is greater than the percentage of time spent doing the activity. Those include, from most percentage difference to least percentage difference, 1) bathing (3.58%), 2) teaching children to pray (3.25%), 3) garden work (2.87%), 4) praying (2.68%), 5) taking children to school (1.79%), 6) doing

business/savings (1.6%), 7) washing clothes (1.18%), 8) eating (1.08%), 9) cooking (0.92%), 10) listening to the radio (0.32%), and 11) using the restroom (0.21%).

There are fourteen activities that women spend more time doing than the happiness that comes from the activity. The activities included in this category, from most percentage difference to least percentage difference, are 1) washing utensils (-2.44%), 2) sweeping compound (-2.26%), 3) washing face (-2.25%), 4) brushing teeth (-1.91%), 5) grazing animals (-1.64%), 6) buying food from market (-1.61%), 7) fetching water (-1.5%), 8) sleeping (-1.19%), 9) fishing (-0.99%), 10) collecting firewood (-0.98%), 11) hunting (-0.81%), 12) bathing children (-0.76%), 13) milking animals (-0.68%), and 14) resting (-0.47%).

The activities that both men and women feel happier doing than the amount of time they spend doing them include the following activities: 1) teaching children to pray, 2) eating, 3) taking children to school, 4) praying, and 5) garden work.

The activities that both men and women spend more time doing than the happiness felt while doing them include the following: 1) washing face, 2) milking animals, 3) resting, 4) buying food from market, 5) bathing children, 6) collecting firewood, 7) sleeping, 8) brushing teeth, 9) fetching water, 10) sweeping compound, and 11) washing utensils.

Activities that women enjoy greater than the time they spend doing them but that are also activities that men spend more time doing than the amount of happiness they derive from them include the following: 1) listening to radio, 2) using the restroom, 3) doing business/savings, 4) washing clothes, 5) cooking, and 6) bathing.

Activities that men enjoy greater than the time they spend doing them but that women spend more time doing than they enjoy include the following: 1) fishing and 2) grazing animals.

Based on the data collected from respondents in Village 1, grazing animals is one of the seven activities where men and women responses differ. Therefore, there are seven activities where the responsibility can potentially be shifted from one sex to the other in order to create a situation where people are able to spend more time on activities that make them happy. These activities offer a platform for development intervention, as these are the time use patterns that can be manipulated in order to create a more equal and desirable distribution of responsibilities within the village. For example, men enjoy grazing animals greater than the amount of time they spend grazing animals and women graze animals greater than they enjoy grazing animals. Therefore, if men begin spending more time grazing animals, they may feel more enjoyment and, in turn, women will not have to spend as much time grazing animals and may feel less displeasure from the activity since the responsibility will be lifted.

In conclusion, men in Village 1 spend more time doing things that don't make them happy, with 17 of the 25 activities producing less happiness than the amount of time spent doing them. Women in Village 1 also spend more time doing activities that don't make them happy, with 14 of the 25 activities producing less happiness than the amount of time spent doing them. Therefore, both men and women spend more of their everyday life engaging in activities that don't make them as happy as the time they spend doing them.

Village 2 Results

The second portion of the study was conducted in the district of Kumi, in the sub-county of Ongino, in the village of Oseera. The language spoken by the people of this village is Atesso; few understand English. Two Village Enterprise employees, Isaac Otim and Angela Aguti, translated the study instructions and activities from English to Atesso. Table 3 gathers the data from the paperclip activities conducted in Village 2.

Table 3: Village 2 Paperclip Activity Results

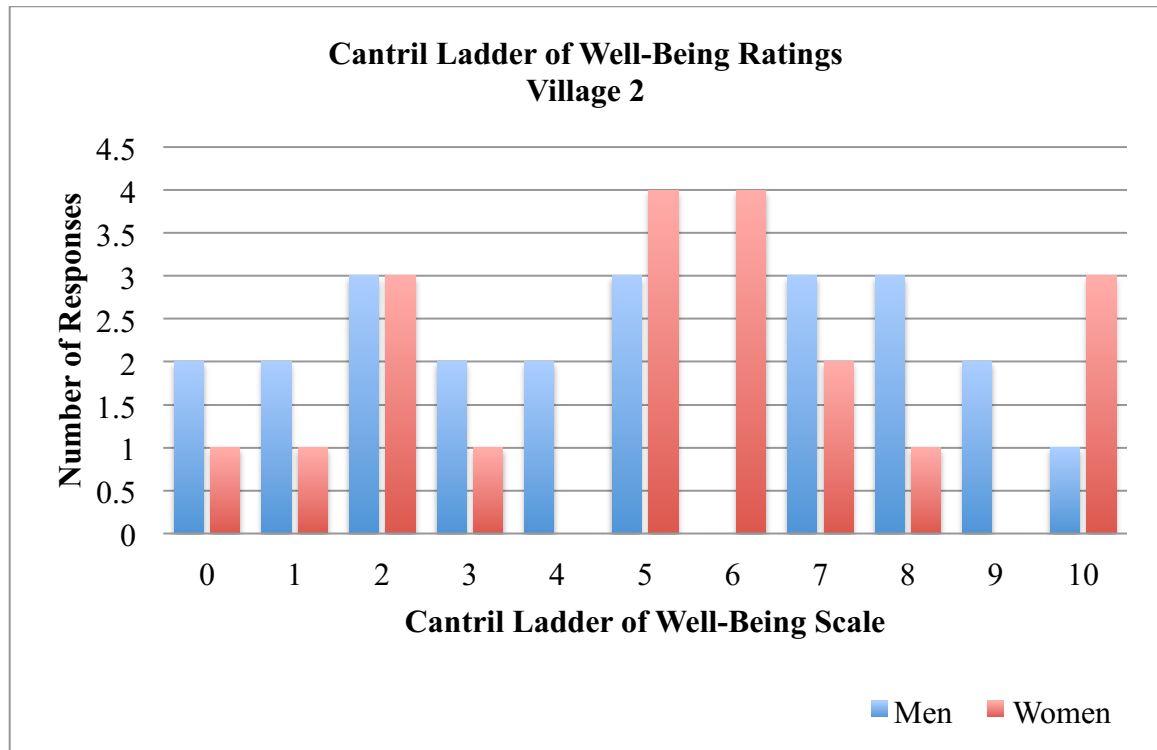
	VILLAGE 2	How much time do you spend on each activity in a normal day?		How much do you enjoy this activity? How happy does it make you?	
		Men	Women	Men	Women
1	Grazing Animals (15)	151 (13.71)	60 (5.63)	117 (10.67)	45 (4.29)
2	Garden Work (14)	78 (7.08)	124 (11.63)	88 (8.02)	70 (6.67)
3	Cooking (14)	53 (4.81)	82 (7.69)	21 (1.91)	73 (6.96)
4	Collecting Firewood (10)	47 (4.27)	59 (5.53)	28 (2.55)	54 (5.15)
5	Washing Clothes (9)	77 (6.99)	77 (7.22)	50 (4.56)	57 (5.43)
6	Bathing (9)	45 (4.09)	46 (4.32)	61 (5.56)	74 (7.05)
7	Bathing Children (8)	47 (4.27)	53 (4.97)	37 (3.37)	45 (4.29)
8	Fetching Water (7)	49 (4.45)	41 (3.85)	26 (2.37)	38 (3.62)
9	Washing Utensils (7)	26 (2.36)	35 (3.28)	20 (1.82)	35 (3.33)
10	Drinking Alcohol (7)	51 (4.63)	31 (2.91)	36 (3.28)	29 (2.76)
11	Fishing (7)	63 (5.72)	32 (3)	56 (5.1)	40 (3.81)
12	Brushing Teeth (5)	41 (3.72)	31 (2.91)	58 (5.29)	36 (3.43)
13	Praying (5)	35 (3.18)	32 (3)	69 (6.29)	55 (5.24)
14	Greeting the Neighbors/Family (4)	22 (2)	30 (2.81)	41 (3.74)	28 (2.67)
15	Selling Produce (4)	6 (0.54)	23 (2.16)	18 (1.64)	20 (1.91)
16	Feeding Animals (4)	23 (2.09)	27 (2.53)	37 (3.37)	34 (3.24)
17	Sleeping (4)	75 (6.81)	128 (12.01)	126 (11.49)	112 (10.68)
18	Hunting (3)	34 (3.09)	5 (0.47)	27 (2.46)	16 (1.53)
19	Taking Children to Hospital (3)	38 (3.45)	27 (2.53)	39 (3.56)	39 (3.72)
20	Playing with Children (3)	29 (2.63)	24 (2.25)	27 (2.46)	33 (3.15)
21	Slashing Compound (3)	25 (2.27)	16 (1.5)	19 (1.73)	24 (2.29)
22	Milking Animals (3)	25 (2.27)	10 (0.94)	34 (3.1)	31 (2.96)
23	Sweeping the Compound (2)	30 (2.72)	27 (2.53)	20 (1.82)	22 (2.1)
24	Buying Food from Market (2)	11 (1)	22 (2.06)	16 (1.46)	18 (1.72)
25	Taking Children to School (2)	20 (1.82)	24 (2.23)	26 (2.37)	21 (2)
TOTAL		1,101	1,066	1,097	1,049

Labor versus Non-Labor Activities. Within Village 2, there were eighteen activities that fell under the labor activity category and seven activities that fell under the non-labor activity category. Labor activities included the following: 1) grazing animals, 2) garden work, 3) cooking, 4) collecting wood, 5) washing clothes, 6) bathing children, 7) fetching water, 8) washing utensils, 9) fishing, 10) selling produce, 11) feeding animals, 12) hunting, 13) taking children to hospital, 14) slashing compound, 15) milking animals, 16) sweeping compound, 17) buying food from market, and 18) taking children to school. Men spent 72.91% of their time on labor activities on an average day, whereas women spent 69.75% of their time on labor activities (a 3.16% difference).

Non-labor activities included the following: 1) bathing 2) drinking alcohol, 3) brushing teeth, 4) praying, 5) greeting the neighbors/family, 6) sleeping, 7) playing with children. Men spent 27.06% of their time on non-labor activities on an average day, whereas women spent 30.21% on non-labor activities (a 3.15% difference).

Cantril Ladder of Well-Being Scale Ratings. After the above activities were completed, the participants were asked the Cantril Ladder of Well-Being Scale Question. Figure 5 shows the distribution of the forty-three responses. The blue bars represent the men's responses and the red bars represent the women's responses.

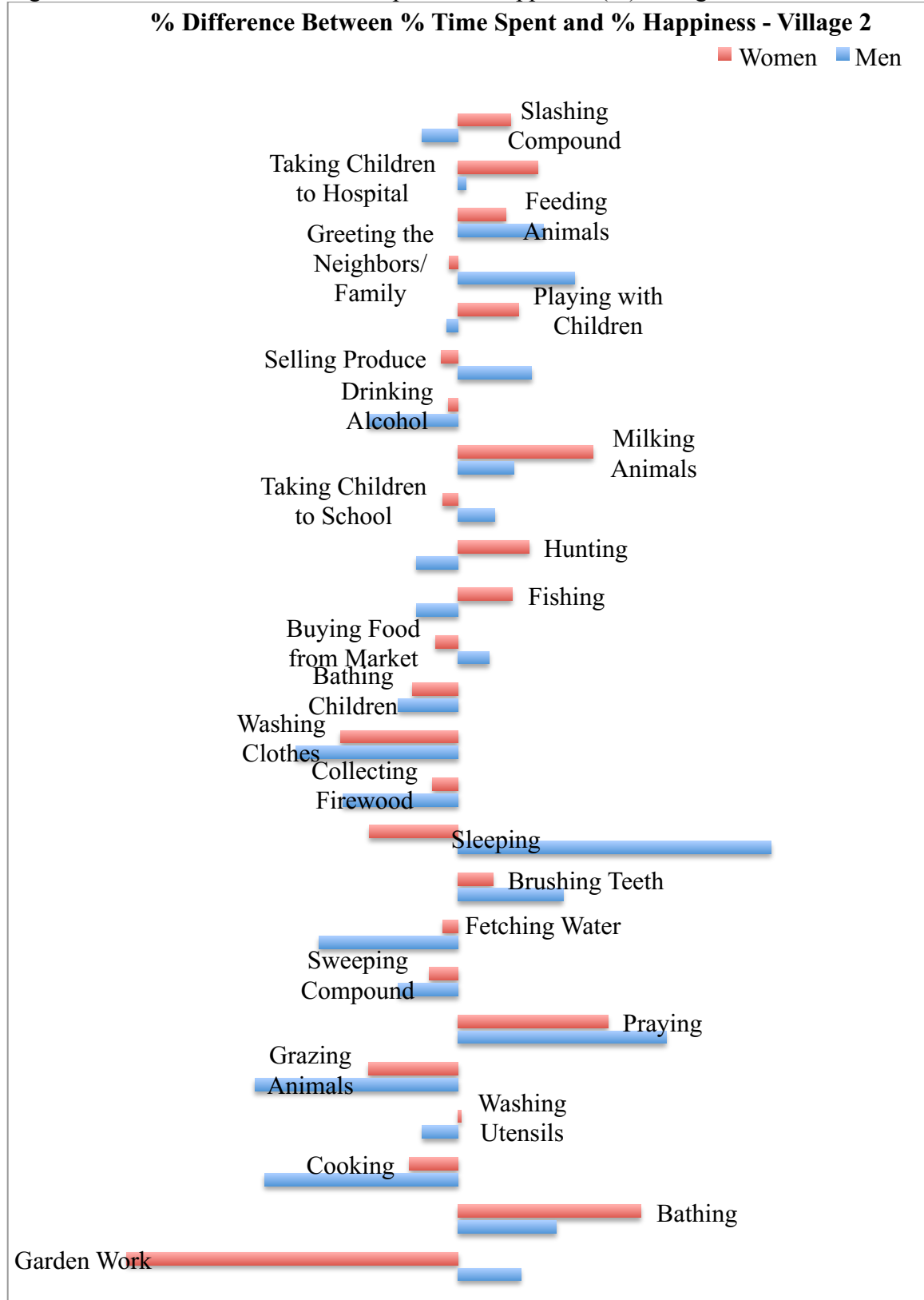
Figure 5: Cantril Ladder of Well-Being Ratings Village 2



On average, men in Village 2 rate themselves at a 4.783 on the Cantril Ladder Scale. On average, women in Village 2 rate themselves at a 5.3 on the Cantril Ladder Scale.

Difference Between Time Spent and Happiness. Figure 6 shows the difference between the percentage of time spent on each activity and the percentage of happiness that comes from engaging in that activity. The blue bars represent men and the red bars represent women within Village 2, Oseera. The bars extending to the right are positive values and represent the activities that bring more happiness than the amount of time spent on them. The bars extending to the left are negative values that represent activities that produce less happiness than the amount of time spent doing them

Figure 6: Difference Between Time Spent and Happiness (%) Village 2



According to the data, there are twelve activities that men spend their time doing where the percentage of happiness from the activity is greater than the percentage of time spent doing the activity, leading to a positive percentage difference. The twelve activities, from most percentage difference to least percentage difference, include the following: 1) sleeping (4.68%), 2) praying (3.11%), 3) greeting the neighbors/family (1.74%), 4) brushing teeth (1.57%), 5) bathing (1.47%), 6) feeding animals (1.28%), 7) selling produce (1.1%), 8) garden work (0.94%), 9) milking animals (0.83%), 10) taking children to school (0.55%), 11) buying food from market (0.46%), and 12) taking children to hospital (0.11%).

On the other hand, there are thirteen activities that men spend their time doing where the percentage of happiness from those activities is less than the percentage of time spent doing the activity. Included in this category are the following activities, from most percentage difference to least percentage difference: 1) grazing animals (-3.04%), 2) cooking (-2.9%), 3) washing clothes (-2.43%), 4) fetching water (-2.08%), 5) collecting firewood (-1.72%), 6) drinking alcohol (-1.35%), 7) bathing children (-0.9%), 8) sweeping compound (-0.9%), 9) hunting (-0.63%), 10) fishing (-0.62%), 11) slashing compound (-0.54%), 12) washing utensils (-0.54%), and 13) playing with children (-0.17%).

There are eleven activities that women spend their time doing where the percentage of happiness from those activities is greater than the percentage of time spent doing the activity. Those include, from most percentage difference to least percentage difference, 1) bathing (2.73%), 2) praying (2.24%), 3) milking animals (2.02%), 4) taking children to hospital (1.19%), 5) hunting (1.06%), 6) playing with children (0.9%), 7)

fishing (0.81%), 8) slashing compound (0.79%), 9) feeding animals (0.71%), 10) brushing teeth (0.52%), and 11) washing utensils (0.05%).

There are fourteen activities that women spend more time doing than the happiness that comes from the activity. The activities included in this category, from least percentage difference to most percentage difference, are 1) garden work (-4.96%), 2) washing clothes (-1.76%), 3) grazing animals (-1.34%), 4) sleeping (-1.33%), 5) cooking (-0.73%), 6) bathing children (-0.68%), 7) sweeping compound (-0.43%), 8) collecting firewood (-0.38%), 9) buying food from market (-0.34%), 10) selling produce (-0.25%), 11) taking children to school (-0.23%), 12) fetching water (-0.23%), 13) drinking alcohol (-0.15%), and 14) greeting the neighbors/family (-0.14%).

The activities that both men and women feel happier doing than the amount of time they spend doing them include the following activities: 1) taking children to hospital, 2) feeding animals, 3) milking animals, 4) brushing teeth, 5) praying, and 6) bathing.

The activities that both men and women spend more time doing than the happiness felt when doing them include the following: 1) drinking alcohol, 2) bathing children, 3) washing clothes, 4) collecting firewood, 5) fetching water, 6) sweeping compound, 7) grazing animals, and 8) cooking.

Activities that women enjoy greater than the time they spend doing them but that are also activities that men spend more time doing than the amount of happiness they derive from them include the following: 1) slashing compound, 2) playing with children, 3) hunting, 4) fishing, and 5) washing utensils.

Activities that men enjoy greater than the time they spend doing them but that women spend more time doing than they enjoy include the following: 1) greeting the neighbors/family, 2) selling produce, 3) taking children to school, 4) buying food from market, 5) sleeping, and 6) garden work.

In conclusion, men in Village 2 spend more time doing things that don't make them happy, with 13 of the 25 activities producing less happiness than the amount of time spent doing them. Women in Village 2 also spend more time doing activities that don't make them happy, with 14 of the 25 activities producing less happiness than the amount of time spent doing them. Therefore, both men and women spend more of their everyday life engaging in activities that don't make them as happy as the time they spend doing them.

Village 3 Results

The third portion of the study was conducted in the district of Ngora, the sub-county of Kobwui, in the village of Koidike. The language spoken by the people of this village is Ateso. Few understand English. Two Village Enterprise employees, Isaac Otim and Samuel Onaba, translated the study instructions and activities from English to Ateso. Table 4 showcases the results from the paperclip activities carried out in Village 3.

Table 4: Village 3 Paperclip Activity Results

	VILLAGE 3	How much time do you spend on each activity in a normal day?		How much do you enjoy this activity? How happy does it make you?	
		Men	Women	Men	Women
1	Garden Work (15)	17 (3.8)	130 (7.23)	47 (10.71)	119 (6.98)
2	Bathing (15)	16 (3.58)	73 (4.06)	26 (5.92)	87 (5.1)
3	Cooking (15)	6 (1.34)	93 (5.17)	13 (2.96)	99 (5.8)
4	Bathing Children (15)	15 (3.36)	80 (4.45)	26 (5.92)	84 (4.92)
5	Doing Business/Savings (15)	15 (3.36)	97 (5.34)	32 (7.29)	107 (6.27)
6	Sweeping the Compound (14)	27 (6.04)	83 (4.61)	19 (4.33)	78 (4.57)
7	Fetching Water (14)	19 (4.25)	75 (4.17)	17 (3.87)	79 (4.63)
8	Buying Food From Market (13)	17 (3.8)	96 (5.34)	22 (5.01)	76 (5.16)
9	Washing Utensils (12)	13 (2.91)	77 (4.28)	24 (5.47)	81 (4.75)
10	Brushing Teeth (11)	13 (2.91)	61 (3.34)	33 (7.52)	84 (4.92)
11	Eating (10)	22 (4.92)	78 (4.34)	22 (5.01)	81 (4.74)
12	Collecting Firewood (9)	8 (1.79)	92 (5.11)	11 (2.51)	71 (4.16)
13	Grazing Animals (9)	24 (5.37)	71 (3.95)	18 (4.1)	72 (4.22)
14	Washing Clothes (9)	24 (5.37)	89 (4.95)	24 (5.47)	88 (5.16)
15	Playing with Children (8)	15 (3.36)	12 (0.67)	11 (2.51)	51 (2.99)
16	Resting (7)	18 (4.03)	45 (2.5)	22 (5.01)	58 (3.4)
17	Sleeping (5)	36 (8.05)	94 (5.23)	13 (2.96)	63 (3.69)
18	Casual Labor (4)	19 (4.25)	81 (4.5)	8 (1.82)	39 (2.29)
19	Drinking Alcohol (4)	4 (0.89)	9 (0.5)	8 (1.82)	13 (0.76)
20	Making the Bed (3)	11 (2.46)	53 (2.95)	4 (0.91)	60 (3.52)
21	Praying (2)	18 (4.03)	64 (3.56)	8 (1.82)	48 (2.81)
22	Selling Produce (2)	18 (4.03)	61 (3.39)	7 (1.59)	41 (2.4)
23	Washing Hands (2)	19 (4.25)	64 (3.56)	8 (1.82)	40 (2.34)
24	Discussing the Future (2)	20 (4.47)	69 (3.84)	7 (1.59)	41 (2.4)
25	Fishing (2)	31 (6.94)	52 (2.89)	9 (2.05)	46 (2.7)
TOTAL		447	1,799	439	1,706

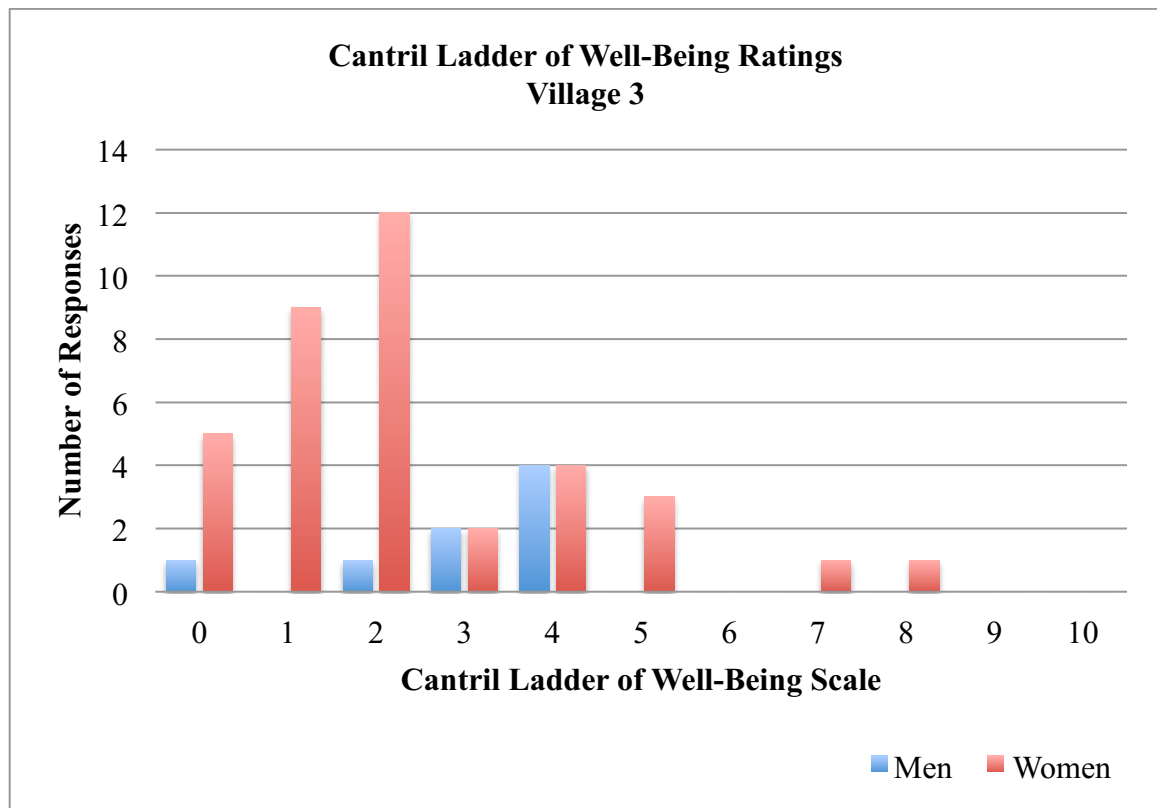
Labor versus Non-Labor Activities. Within Village 3, there were fifteen activities that fell under the labor activity category and ten activities that fell under the non-labor activity category. Labor activities included the following: 1) garden work, 2) cooking, 3) bathing children, 4) doing business/savings, 5) sweeping compound, 6) fetching water, 7) buying

food from market, 8) washing utensils, 9) collecting firewood, 10) grazing animals, 11) washing clothes, 12) casual labor, 13) making the bed, 14) selling produce, and 15) fishing. Men spent 59.07% of their time on labor activities on an average day, whereas women spent 68.33% of their time on labor activities (a 9.26% difference).

Non-labor activities included the following: 1) bathing, 2) brushing teeth, 3) eating, 4) playing with children, 5) resting, 6) sleeping, 7) drinking alcohol, 8) praying, 9) washing hands, and 10) discussing the future. Men spent 27.74% of their time on non-labor activities on an average day, whereas women spent 20.64% on non-labor activities (a 7.1% difference).

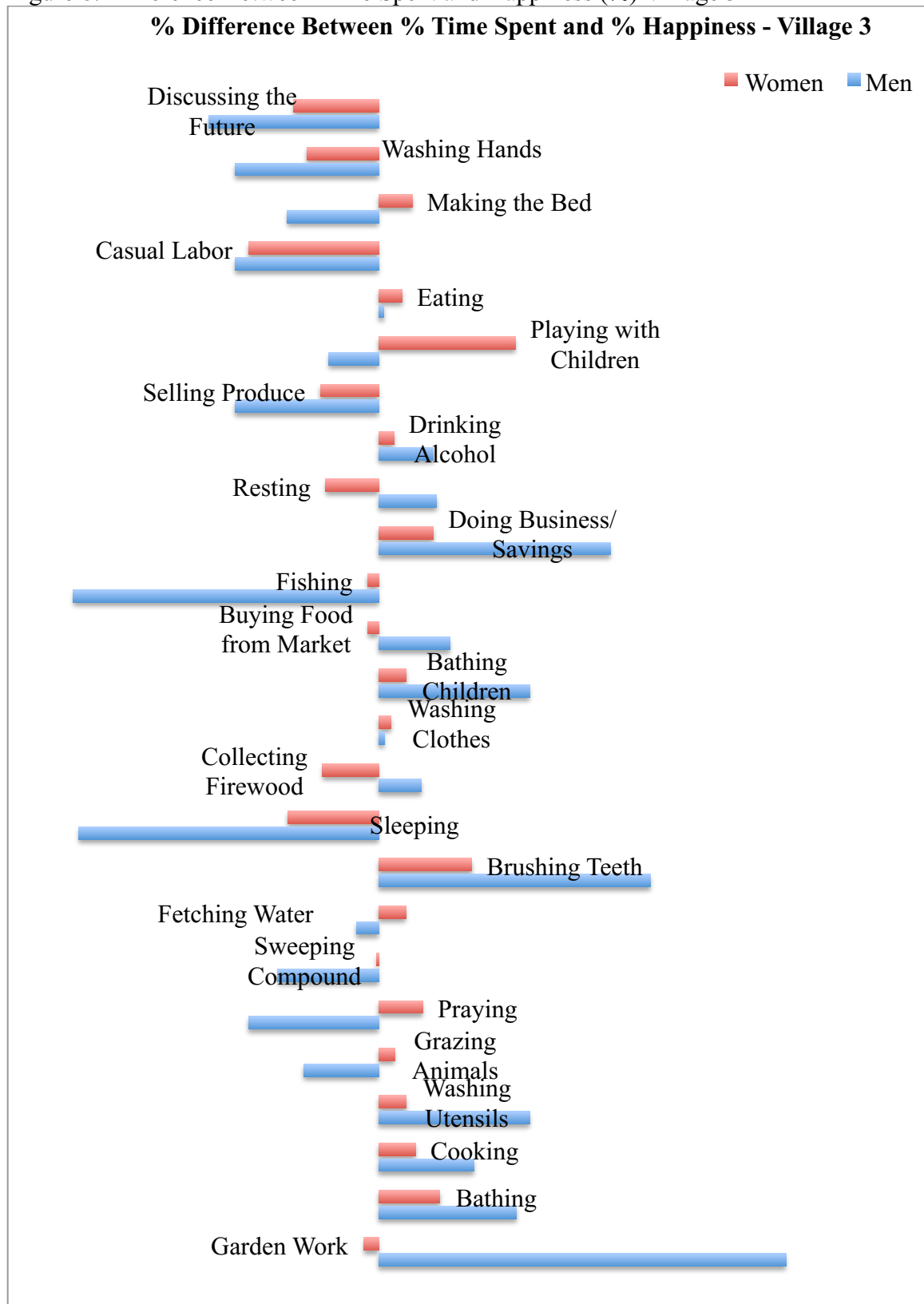
Cantril Ladder of Well-Being Scale Ratings. After the above activities were completed, the participants were asked the Cantril Ladder of Well-Being Scale Question. Figure 7 shows the distribution of the forty-three responses. The blue bars represent the men's responses and the red bars represent the women's responses. On average, the men of Village 3 rate themselves as a 3 on the Cantril Ladder Scale. On average, the women of Village 3 rate themselves as a 2.297 on the Cantril Ladder Scale. Figure 7, below, displays these numbers.

Figure 7: Cantril Ladder of Well-Being Ratings Village 3



Difference Between Time Spent and Happiness. Figure 8 below shows the difference between the percentage of time spent on each activity and the percentage of happiness that comes from engaging in that activity. The blue bars represent men and the red bars represent women within Village 3, Koidike. The bars extending to the right are positive values and represent the activities that bring more happiness than the amount of time spent on them. The bars extending to the left are negative values that represent activities that produce less happiness than the amount of time spent doing them.

Figure 8: Difference Between Time Spent and Happiness (%) Village 3



According to the data, there are thirteen activities that men spend their time doing where the percentage of happiness from the activity is greater than the percentage of time spent doing the activity, leading to a positive percentage difference. The thirteen activities, from most percentage difference to least percentage difference, include the following: 1) garden work (6.91%), 2) brushing teeth (4.61%), 3) doing business/savings (3.93%), 4) washing utensils (2.56%), 5) bathing children (2.56%), 6) bathing (2.34%), 7) buying food from market (1.21%), 8) cooking (1.62%), 9) resting (0.98%), 10) drinking alcohol (0.93%), 11) collecting firewood (0.72%), 12) washing clothes (0.1%), and 13) eating (0.09%).

On the other hand, there are twelve activities that men spend their time doing where the percentage of happiness from those activities is less than the percentage of time spent doing the activity. Included in this category are the following activities, from most percentage difference to least percentage difference: 1) fishing (-5.18%), 2) sleeping (-5.09%), 3) discussing the future (-2.88%), 4) selling produce (-2.44%), 5) washing hands (-2.43%), 6) casual labor (-2.43%), 7) praying (-2.21%), 8) sweeping compound (-1.71%), 9) making the bed (-1.55%), 10) grazing animals (-1.27%), 11) playing with children (-0.85%), and 12) fetching water (-0.38%).

There are fourteen activities that women spend their time doing where the percentage of happiness from those activities is greater than the percentage of time spent doing the activity. Those include, from most percentage difference to least percentage difference, 1) playing with children (2.32%), 2) brushing teeth (1.58%), 3) bathing (1.04%), 4) doing business/savings (0.93%), 5) praying (0.75%), 6) cooking (0.63%), 7) making the bed (0.57%), 8) washing utensils (0.47%), 9) bathing children (0.47%), 10)

fetching water (0.46%), 11) eating (0.4%), 12) grazing animals (0.27%), 13) drinking alcohol (0.26%), and washing clothes (0.21%).

There are eleven activities that women spend more time doing than the happiness that comes from the activity. The activities included in this category, from most percentage difference to least percentage difference, are 1) casual labor (-2.21%), 2) sleeping (-1.54%), 3) discussing the future (-1.44%), 4) washing hands (-1.22%), 5) selling produce (-0.99%), 6) collecting firewood (-0.95%), 7) resting (-0.9%), 8) garden work (-0.25%), 9) fishing (-0.19%), 10) buying food from market (-0.18%), 11) sweeping compound (-0.04%).

The activities that both men and women feel happier doing than the amount of time they spend doing them include the following activities: 1) eating, 2) drinking alcohol, 3) doing business/savings, 4) bathing children, 5) washing clothes, 6) brushing teeth, 7) washing utensils, 8) cooking, and 9) bathing.

The activities that both men and women spend more time doing than the happiness felt when doing them include the following: 1) discussing the future, 2) washing hands, 3) casual labor, 4) selling produce, 5) fishing, 6) sleeping, and 7) sweeping compound.

Activities that women enjoy greater than the time they spend doing them but that are also activities that men spend more time doing than the amount of happiness they derive from them include the following: 1) making the bed, 2) playing with children, 3) fetching water, 4) praying, and 5) grazing animals.

Activities that men enjoy greater than the time they spend doing them but that women spend more time doing than they enjoy include the following: 1) resting, 2) buying food from market, 3) collecting firewood, and 4) garden work.

In conclusion, men in Village 3 spend more time doing things that make them happy, with 13 of the 25 activities producing more happiness than the amount of time spent doing them. Women in Village 3 also spend more time doing activities that make them happy, with 14 of the 25 activities producing more happiness than the amount of time spent doing them. Therefore, both men and women spend more of their everyday life engaging in activities that don't make them as happy as the time they spend doing them.

Activity Ranks – All Villages

In order to better understand the relationship between time use and happiness across all three villages, the following pages analyze the fifteen activities that were mentioned in all three villages. The individual village data for each activity was used to create a ranking of the time spent on each activity and the happiness felt from each of the activities across all three villages. The tables below show the average amount of time spent on the fifteen activities across all three villages, from most time spent to least time spent. As well, the tables show a ranking of the average amount of happiness felt from engaging in each activity, from most happiness to least happiness across all three villages.

Table 5 and 6 showcase the average percentage of time spent by men and the average percentage of happiness felt by men across all three villages. Table 7 and 8

showcase the average percentage of time spent by women and the average percentage of happiness felt by women across all three villages.

Is there a gender difference when observing the overlap between the top five activities that take up the most time and the top five activities that generate the most happiness? In the case of the five activities that men spend the most time doing—sleeping, garden work, fishing, grazing animals, and washing clothes—three of these—garden work, grazing animals, and sleeping—are also on the top five activities that bring the most happiness. The five activities that women spend the most time doing—garden work, cooking, sleeping, washing utensils, and collecting firewood—three of these—garden work, cooking, and sleeping—are also on the top five activities that bring the most happiness. Therefore, both men and women have a similar distribution of engaging in activities where they spend a lot of time doing them but also feel happiness when doing them.

Table 5 and 6

Average Percentage of Time Spent by Men Across All Villages		Average Percentage of Happiness from Men Across All Villages	
1	Sleeping	1	Garden Work
2	Garden Work	2	Bathing
3	Fishing	3	Brushing Teeth
4	Grazing Animals	4	Grazing Animals
5	Washing Clothes	5	Sleeping
6	Bathing	6	Praying
7	Praying	7	Fishing
8	Fetching Water	8	Washing Clothes
9	Sweeping Compound	9	Bathing Children
10	Brushing Teeth	10	Buying Food from Market
11	Buying Food from Market	11	Sweeping Compound
12	Cooking	12	Washing Utensils
13	Bathing Children	13	Fetching Water
14	Collecting Firewood	14	Cooking
15	Washing Utensils	15	Collecting Firewood

Table 7 and 8

Average Percentage of Time Spent by Women Across All Villages		Average Percentage of Happiness from Women Across All Villages	
1	Garden Work	1	Garden Work
2	Cooking	2	Cooking
3	Sleeping	3	Bathing
4	Washing Utensils	4	Washing Clothes
5	Collecting Firewood	5	Sleeping
6	Bathing	6	Praying
7	Washing Clothes	7	Washing Utensils
8	Sweeping Compound	8	Fetching Water
9	Fetching Water	9	Brushing Teeth
10	Bathing Children	10	Bathing Children
11	Buying Food from Market	11	Collecting Firewood
12	Praying	12	Buying Food from Market
13	Grazing Animals	13	Sweeping Compound
14	Brushing Teeth	14	Grazing Animals
15	Fishing	15	Fishing

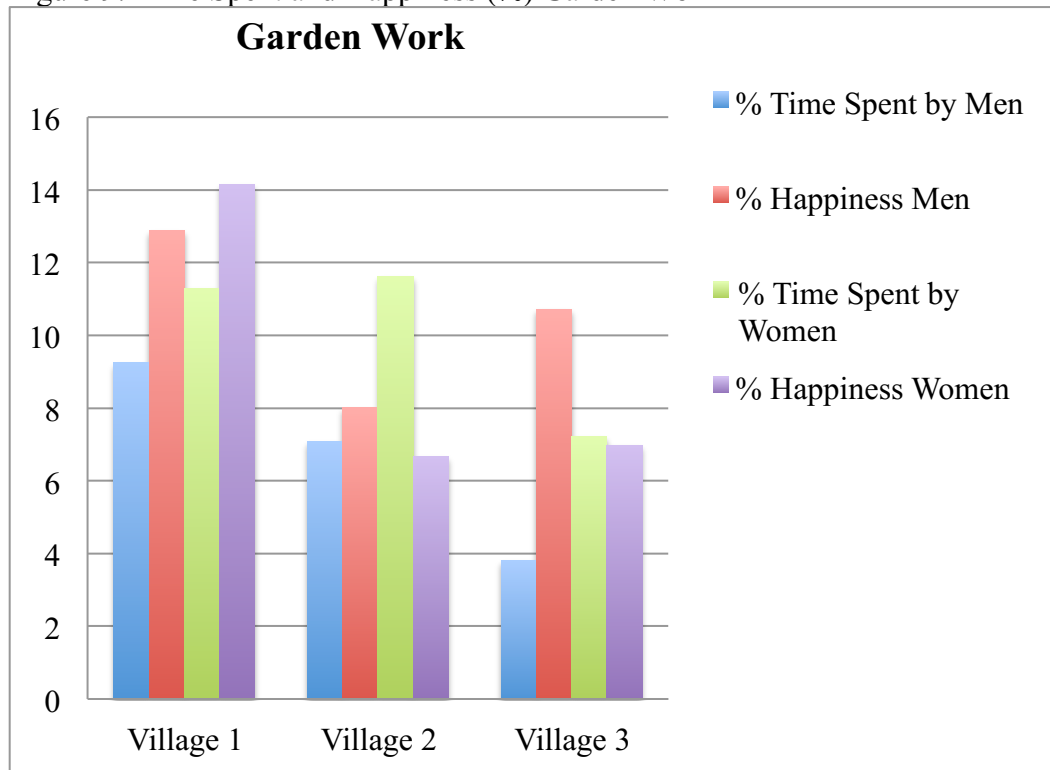
Labor versus Non-Labor Activities. Across all three villages, there were eleven activities that fell under the labor activity category and four activities that fell under the non-labor activity category. Labor activities included the following: 1) garden work, 2) fishing, 3) grazing animals, 4) washing clothes, 5) fetching water, 6) sweeping compound, 7) buying food from market, 8) cooking, 9) bathing children, 10) collecting firewood, and 11) washing utensils. On average across all three villages, men spent 48.29% of their time on labor activities on an average day, whereas women spent 54.06% of their time on labor activities (a 5.77% difference).

Non-labor activities included the following: 1) sleeping, 2) bathing, 3) praying, and 4) brushing teeth. On average across all three villages, men spent 20.7% of their time on non-labor activities on an average day, whereas women spent 20.65% on non-labor activities (a 0.05% difference).

On average across all three villages, women spent more time on labor activities than men and spent just about the same amount of time on non-labor activities as men.

Outliers. As shown in the above tables, garden work is the second most time consuming activity during an average day for a man and the most time consuming activity during an average day for a woman. It is also the activity that makes both men and women the happiest during an average day. Figure 9, below, shows the distribution of time spent and happiness from garden work for men and women in all three villages. This data was further explained and supported with comments made during the group discussions that took place as part of the study. The full transcript of the group discussions for each village can be found in Appendix A.

Figure 9: Time Spent and Happiness (%) Garden Work



Village 1 respondents explained why they enjoy garden work so much in the following conversation:

Question: "What do you enjoy about garden work?"

Answer: "From agriculture we are able to sell our produce, get money, and with the remaining produce, we are able to feed our family. With the money, we are able to send our kids to school."

A: "Garden work helps me with problems at the household level. Once we have food, there's nothing else to worry about after that."

A: "Because this area does not have a lot of business happening, the only business we can think of is an agricultural business."

A: “My parents were part of a generation that did not go to school. I love agriculture because I have seen that it has made it possible to send my children to school.”

Question: “Garden Work is a strenuous activity and yet you are happy doing it. Why aren’t you as happy resting?”

Answer: “I would rather be doing business with my produce than resting because doing business solves problems at home.”

A: “If you just rest, you’re just going to lose time to do productive things. There will come a time to rest at the end of the day.”

A: “Disease and illness are emergencies, so the time you spend taking a rest is wasting time that can be used to take care of emergencies.”

A Village 2 respondent added the following insight into why they enjoy garden work so much:

Question: “Tell me more about why you enjoy garden work.”

Answer: “When there is plenty of rain, I get to watch a lot of my crops growing. And then harvesting time comes and that makes me very happy because I am able to produce something.”

Village 3 respondents explained why they felt happiness while doing garden work with the following dialog:

Question: “Do you think you spend more time doing things you enjoy than things you don’t enjoy?”

Answer: “I spend more time doing things I enjoy.”

A: “But people are not happy.”

A: “But that’s not true. When you go to the garden, you come back happy because you have accomplished something.”

Correlations

The graphs that follow reveal the correlations between the time spent on the individual activities and the percentage of happiness felt while engaging in each activity. The graphs also show the correlations between the percentage of time spent and the average self-reported happiness. As this study was solely exploratory and observational in nature, the direction of causality of the correlations calculated below is unknown. For example, if there was a positive correlation between the percentage of time spent on garden work and average self-reported happiness, it is not possible to determine whether spending time on garden increased happiness or if the happier one is the more time he or she spent on garden work.

Figure 10: Correlation Between Time Spent and Happiness (%) - Men

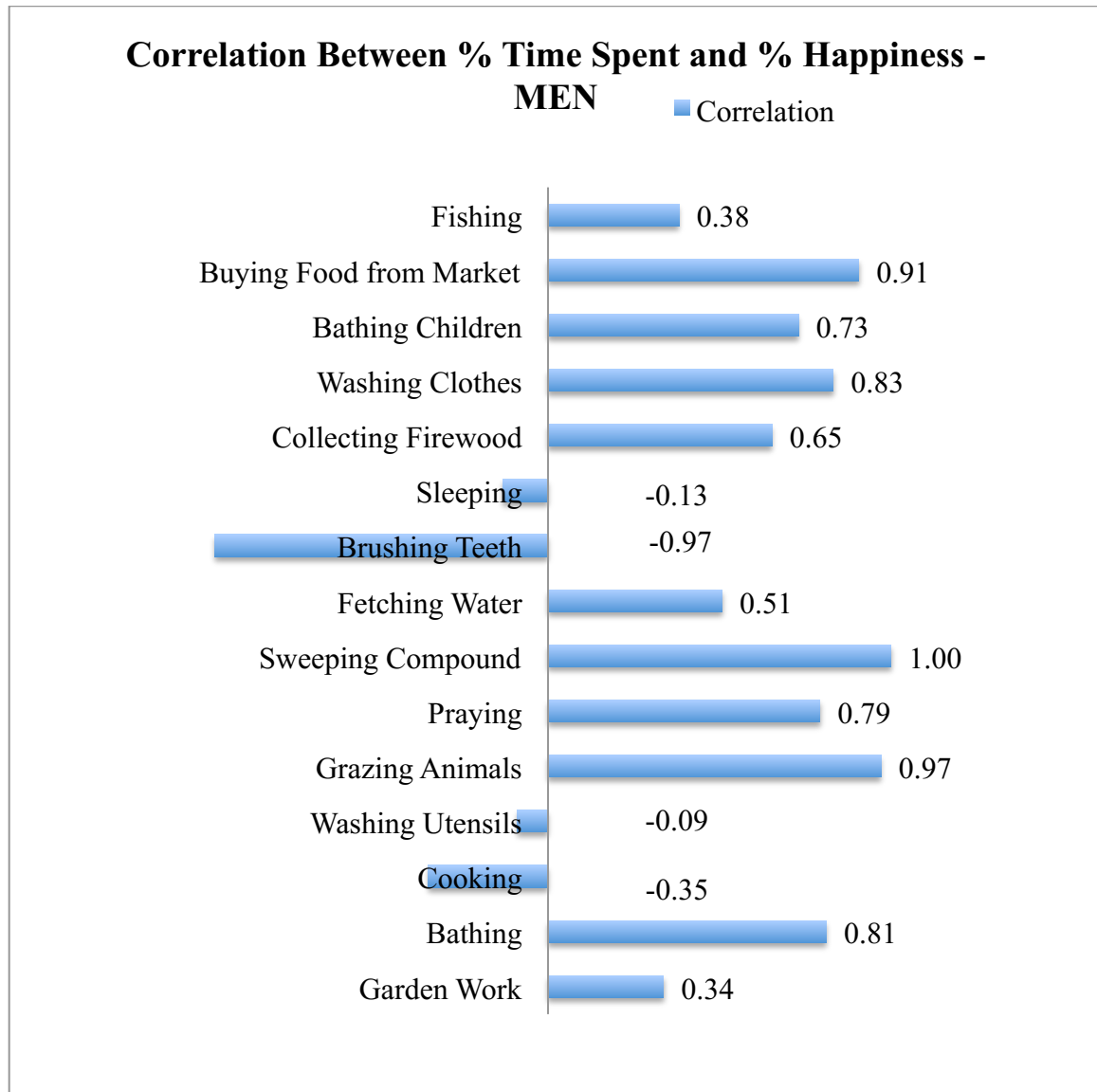


Figure 10 above displays the correlation coefficient, r , between the percentage of time spent on each activity and the percentage of happiness that comes from each activity, as identified by men.

The activities that show a positive correlation between percentage time spent and percentage happiness include: 1) sweeping compound ($r=1.00$), 2) grazing animals

($r=0.97$), 3) buying food from market ($r=0.91$), 4) washing clothes ($r=0.83$), 5) bathing ($r=0.81$), 6) praying ($r=0.79$), 7) bathing children ($r=0.73$), 8) collecting firewood ($r=0.65$), 9) fetching water ($r=0.51$), 10) fishing ($r=0.38$), and 11) garden work ($r=0.34$).

The percentage of time spent on fishing and garden work and the percentage of happiness that comes from fishing and garden work have a weak positive linear relationship. The percentage of time spent on fetching water and collecting firewood and the percentage of happiness that comes from fetching water and collecting have a moderate positive relationship. The percentage of time spent on bathing children, praying, bathing, washing clothes, buying food from market, grazing animals, and sweeping compound and the percentage of happiness that comes from bathing children, praying, bathing, washing clothes, buying food from market, grazing animals, and sweeping compound have a strong positive linear relationship.

The activities that show a negative correlation between percentage time spend and percentage happiness include: 1) brushing teeth ($r=-0.97$), 2) cooking ($r=-0.35$), 3) sleeping ($r=-0.13$), and 4) washing utensils ($r=-0.09$).

The percentage of time spent on brushing teeth and the percentage of happiness that comes from brushing teeth have a strong negative linear relationship. The percentage of time spent on cooking and the percentage of happiness that comes from cooking have a weak negative linear relationship. The percentage of time spent on sleeping and washing utensils and the percentage of happiness that comes from sleeping and washing utensils have no linear relationship.

Figure 11: Correlation Between Time Spent and Happiness (%) - Women

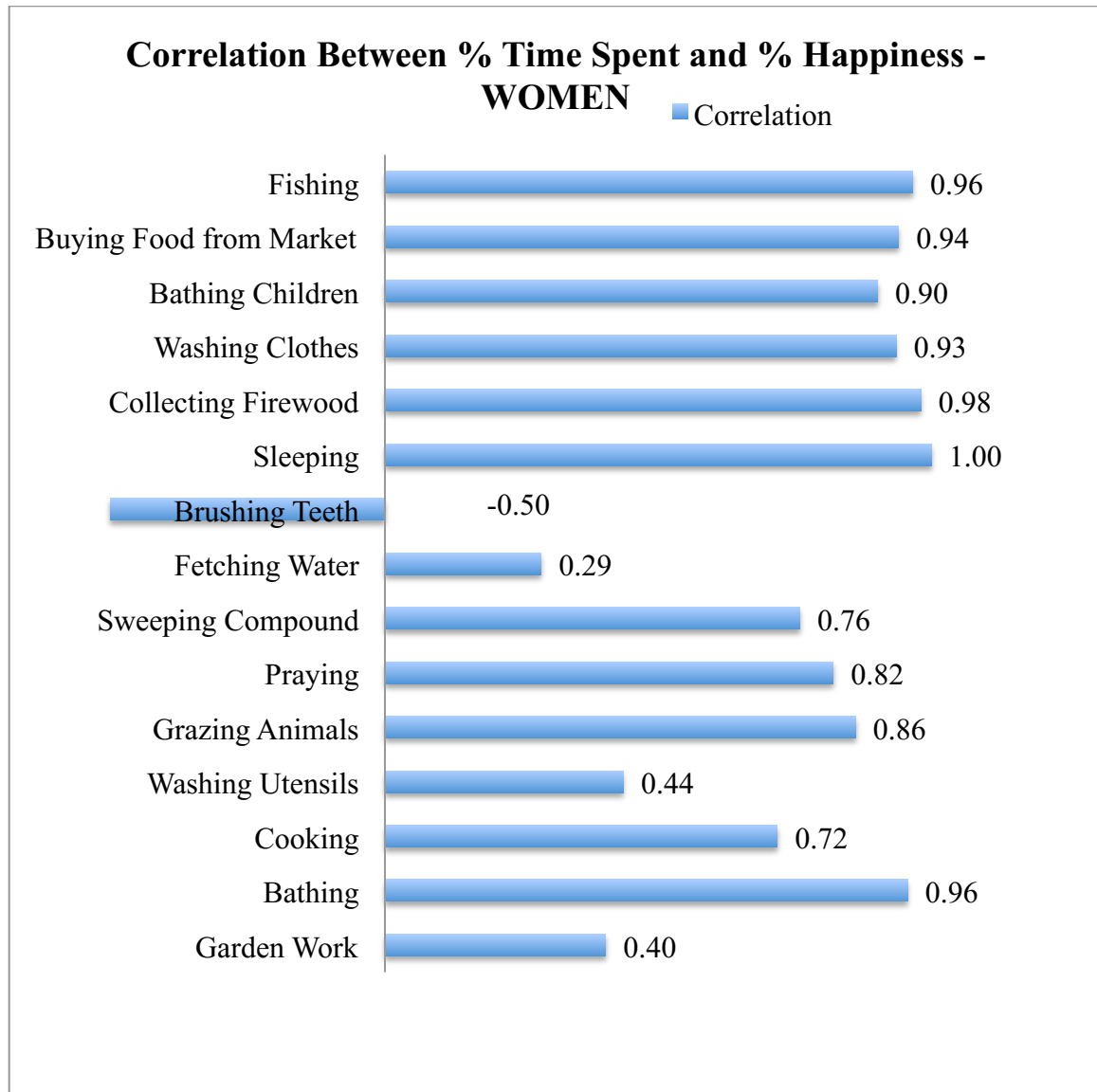


Figure 11 above displays the correlation coefficient, r , between the percentage of time spent on each activity and the percentage of happiness that comes from each activity, as identified by women.

The activities that show a positive correlation between percentage time spent and percentage happiness include: sleeping ($r=1.00$), collecting firewood ($r=0.98$), fishing

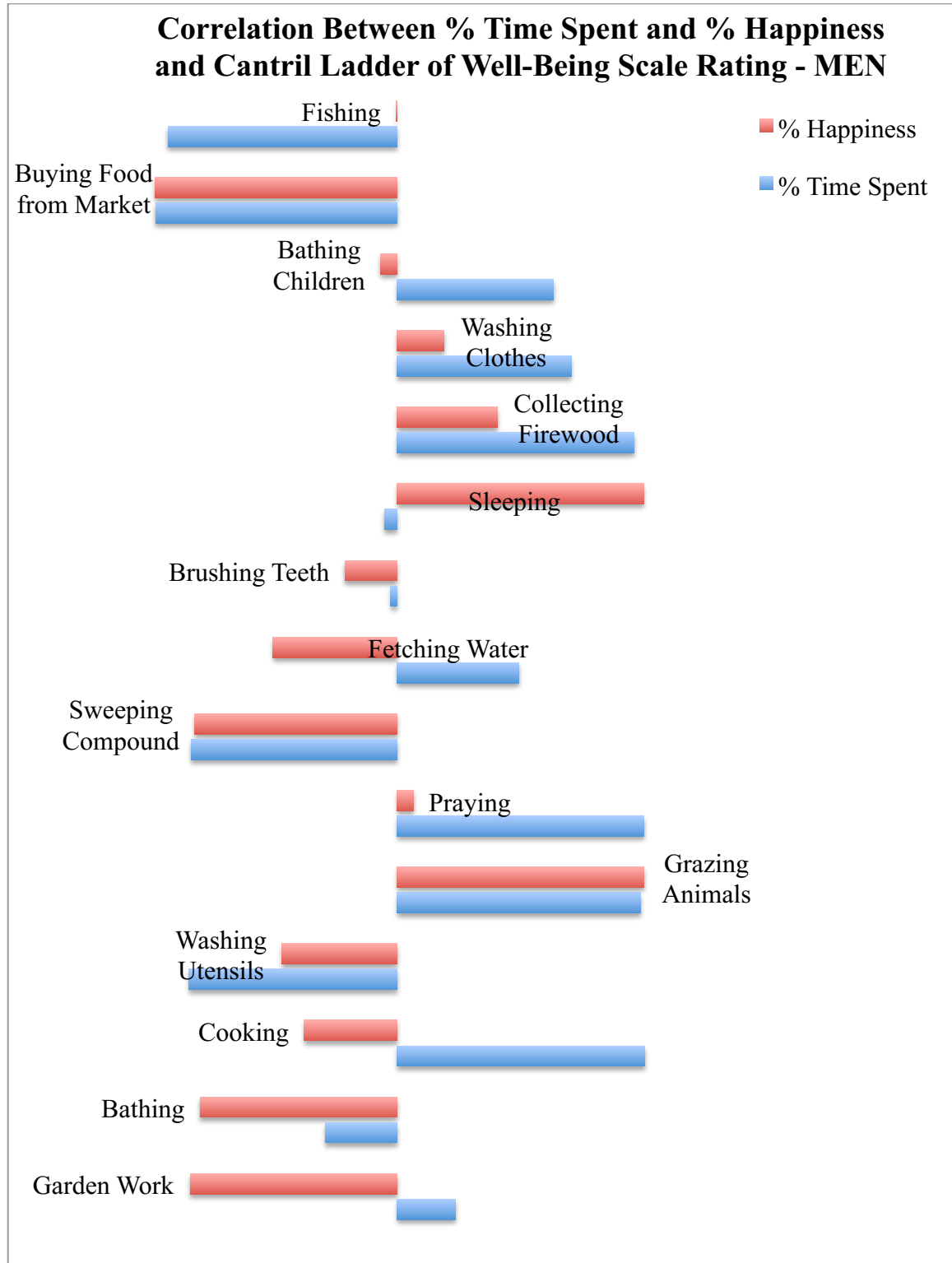
($r=0.96$), bathing ($r=0.96$), buying food from market ($r=0.94$), washing clothes ($r=0.93$), bathing children ($r=0.90$), grazing animals ($r=0.86$), praying ($r=0.82$), sweeping compound ($r=0.76$), cooking ($r=0.72$), washing utensils ($r=0.44$), garden work ($r=0.40$), and fetching water ($r=0.29$).

The time spent sleeping and the happiness felt from sleeping show a perfectly linear positive relationship. The time spent on and the happiness experienced from collecting firewood, fishing, bathing, buying food from market, washing clothes, bathing children, grazing animals, praying, sweeping compound, and cooking show a strong positive relationship. The time spent and the happiness associated with washing utensils and garden work show a weak positive relationship. The correlation between time spent fetching water and the happiness felt shows no linear relationship.

The activity that shows a negative correlation and a moderate negative linear relationship between percentage time spent and percentage happiness is brushing teeth ($r=-0.50$).

Time Spent, Happiness and Cantril Ladder for Men. The red bars in Figure 12 below show the correlation between the percentage of happiness derived from each activity and the average self-reported happiness of the villages. The blue bars represent the correlation between the percentage of time spent on each activity and the average self-reported happiness of the villages.

Figure 12: Correlation Between Time Spent, Happiness and Cantril Ladder - Men



Happiness and Cantril Ladder for Men. The activities that show a positive correlation between the percentage of happiness derived from the activity and the average self-reported happiness of the village for men include the following: 1) grazing animals ($r=1.00$), 2) sleeping ($r=1.00$), 3) collecting firewood ($r=0.41$), 4) washing clothes ($r=0.19$), and 5) praying ($r=0.07$). Fishing ($r=0$) does not have a linear relationship with average self-reported happiness.

The percentage of happiness felt from fishing, praying, and washing clothes and the average self-reported happiness of the villages have no linear relationship. There is a weak positive linear relationship between the percentage of happiness derived from collecting firewood and average self-reported happiness. The percentage of happiness felt from grazing animals and sleeping and the average self-reported happiness have a perfect positive linear relationship.

The activities that show a negative correlation between percentage happiness and average self-reported happiness for men include: 1) buying food from market ($r=-0.98$), 2) garden work ($r=-0.84$), 3) sweeping compound ($r=-0.82$), 4) bathing ($r=-0.80$), 5) fetching water ($r=-0.50$), 6) washing utensils ($r=-0.46$), 7) cooking ($r=-0.37$), 8) brushing teeth ($r=-0.21$), and 9) bathing children ($r=-0.07$).

The percentage of happiness placed on buying food from market, garden work, sweeping compound, and bathing and the average self-reported happiness of the villages have a strong negative linear relationship. The percentage of happiness placed on fetching water and the average self-reported happiness of the villages have a moderate negative linear relationship. The percentage of happiness placed on washing utensils and cooking and the average self-reported happiness of the villages have a weak negative

linear relationship. Brushing teeth and bathing children have no linear relationship with average self-reported happiness.

Time Spent and Cantril Ladder for Men. The activities that show a positive correlation between the percentage of time spent on the activity and the average self-reported happiness of the village for men include the following: 1) cooking ($r=1.00$), 2) praying ($r=1.00$), 3) grazing animals ($r=1.00$), 4) collecting firewood ($r=0.96$), 5) washing clothes ($r=0.70$), 6) bathing children ($r=0.63$), 7) fetching water ($r=0.49$), and 8) garden work ($r=0.24$).

The percentage of time spent on cooking, praying, and grazing animals and the average self-reported happiness of the villages have no linear relationship. The percentage of time spent on collecting firewood and the average self-reported happiness have a weak positive linear relationship. The percentage of time spent on grazing animals and sleeping and the average self-reported happiness have a perfect positive linear relationship.

The activities that show a negative correlation between percentage of time spent and average self-reported happiness for men include: 1) buying food from market ($r=-0.98$), 2) fishing ($r=-0.93$), 3) washing utensils ($r=-0.84$), 4) sweeping compound ($r=-0.83$), 5) bathing ($r=-0.29$), 6) sleeping ($r=-0.05$), and 7) brushing teeth ($r=-0.03$).

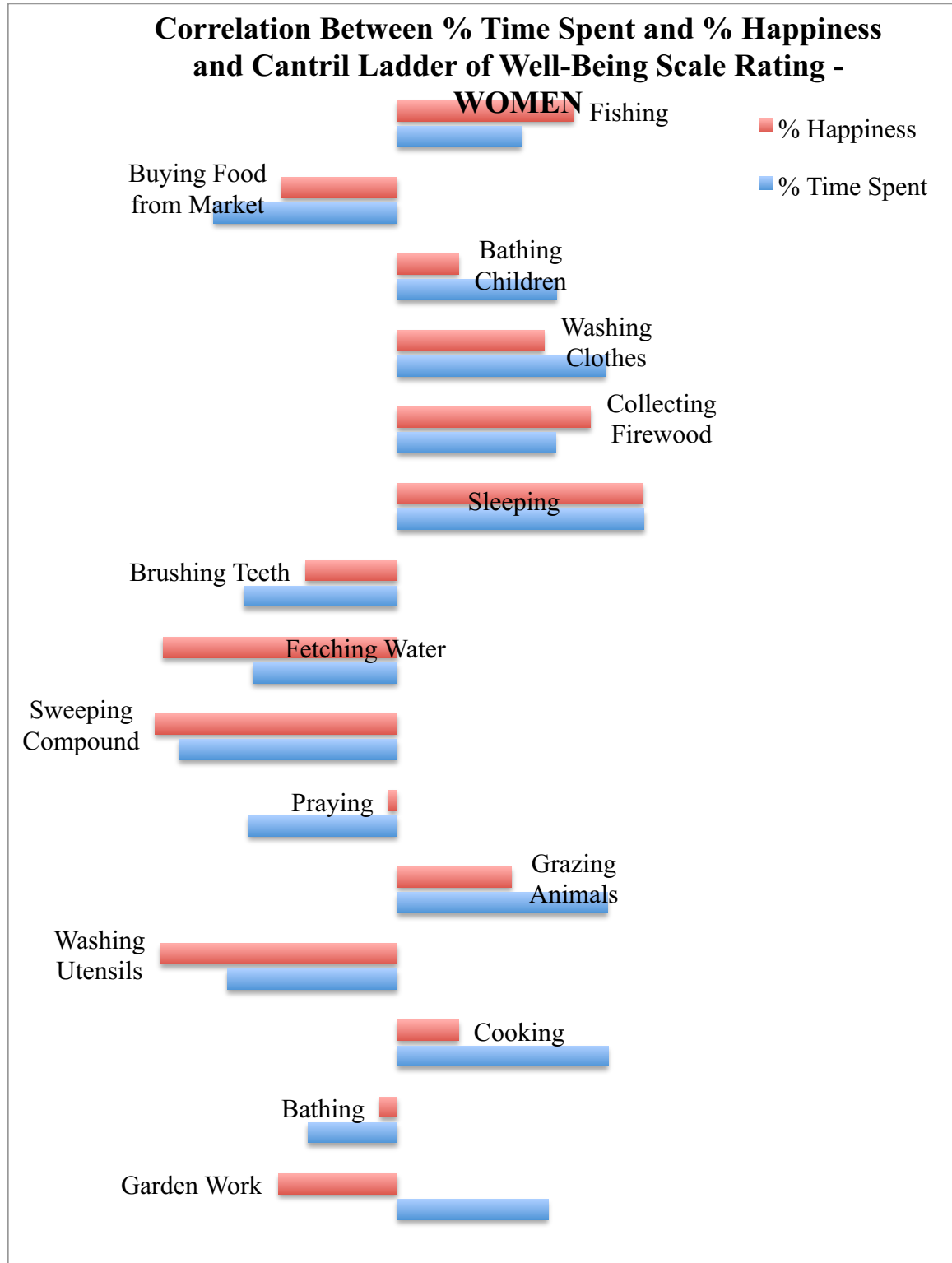
The percentage of time spent buying food from market, garden work, sweeping compound, and bathing and the average self-reported happiness of the villages have a strong negative linear relationship. The percentage of time spent on fetching water and the average self-reported happiness of the villages have a moderate negative linear relationship. The percentage of time spent on washing utensils and cooking and the

average self-reported happiness of the villages have a weak negative linear relationship.

The percentage of time spent on brushing teeth and bathing children have no linear relationship with average self-reported happiness.

Time Spent, Happiness and Cantril Ladder for Women. The red bars in Figure 13 below show the correlation between the percentage of happiness derived from each activity and the average self-reported happiness of the villages. The blue bars represent the correlation between the percentage of time spent on each activity and the average self-reported happiness of the villages.

Figure 13: Correlations Between Time Spent, Happiness and Cantril Ladder - Women



Happiness and Cantril Ladder for Women. The activities that show a positive correlation between the percentage of happiness derived from the activity and the average self-reported happiness of the village for women include the following: 1) sleeping ($r=0.99$), 2) collecting firewood ($r=0.78$), 3) fishing ($r=0.71$), 4) washing clothes ($r=0.59$), 5) grazing animals ($r=0.46$), 6) bathing children ($r=0.25$), and 7) cooking ($r=0.25$).

The percentage of happiness felt from sleeping, collecting firewood, and fishing and the average self-reported happiness have a strong positive linear relationship. The percentage of happiness felt from washing clothes and the average self-reported happiness have a moderate positive linear relationship. The percentage of happiness felt from grazing animals and the average self-reported happiness a weak positive linear relationship. The percentage of happiness felt from bathing children, cooking, praying, and bathing and average self-reported happiness have no linear relationship.

The activities that show a negative correlation between percentage happiness and average self-reported happiness for women include: 1) sweeping compound ($r=-0.98$), 2) washing utensils ($r=-0.95$), 3) fetching water ($r=-0.95$), 4) garden work ($r=-0.48$), 5) buying food from market ($r=-0.46$), 6) brushing teeth ($r=-0.37$), 7) bathing ($r=-0.07$), and 8) praying ($r=-0.03$).

The percentage of happiness placed on sweeping compound, washing utensils, and fetching water and the average self-reported happiness of the villages have a strong negative linear relationship. The percentage of happiness placed on garden work, buying food from market, and brushing teeth and the average self-reported happiness of the villages have a weak negative linear relationship.

Time Spent and Cantril Ladder for Women. The activities that show a positive correlation between the percentage of time spent on the activity and the average self-reported happiness of the village for women include the following: 1) sleeping ($r=1.00$), 2) cooking ($r=0.85$), 3) grazing animals ($r=0.85$), 4) washing clothes ($r=0.84$), 5) bathing children ($r=0.64$), 6) collecting firewood ($r=0.64$), 7) garden work ($r=0.61$), and 8) fishing ($r=0.50$).

There is a perfect positive relationship between the percentage of time spent on sleeping and the average self-reported happiness of the villages. The percentage of time spent on cooking, grazing animals, and washing clothes and the average self-reported happiness of the villages have a strong positive linear relationship. The percentage of time spent on bathing children, collecting firewood, garden work, and fishing and average self-reported happiness have a moderate positive linear relationship.

The activities that show a negative correlation between percentage of time spent and average self-reported happiness for women include: 1) sweeping compound ($r=-0.88$), 2) buying food from market ($r=-0.74$), 3) washing utensils ($r=-0.68$), 4) brushing teeth ($r=-0.62$), 5) praying ($r=-0.60$), 5) fetching water ($r=-0.58$), and 6) bathing ($r=-0.36$).

There is a strong negative linear relationship between the percentage of time spent sweeping compound and buying food from market and the average self-reported happiness of the villages. The percentage of time spent on washing utensils, brushing teeth, praying, and fetching water and the average self-reported happiness of the villages have a moderate negative linear relationship. There is a weak negative linear relationship

between the percentage of time spent on bathing and the average self-reported happiness of the villages.

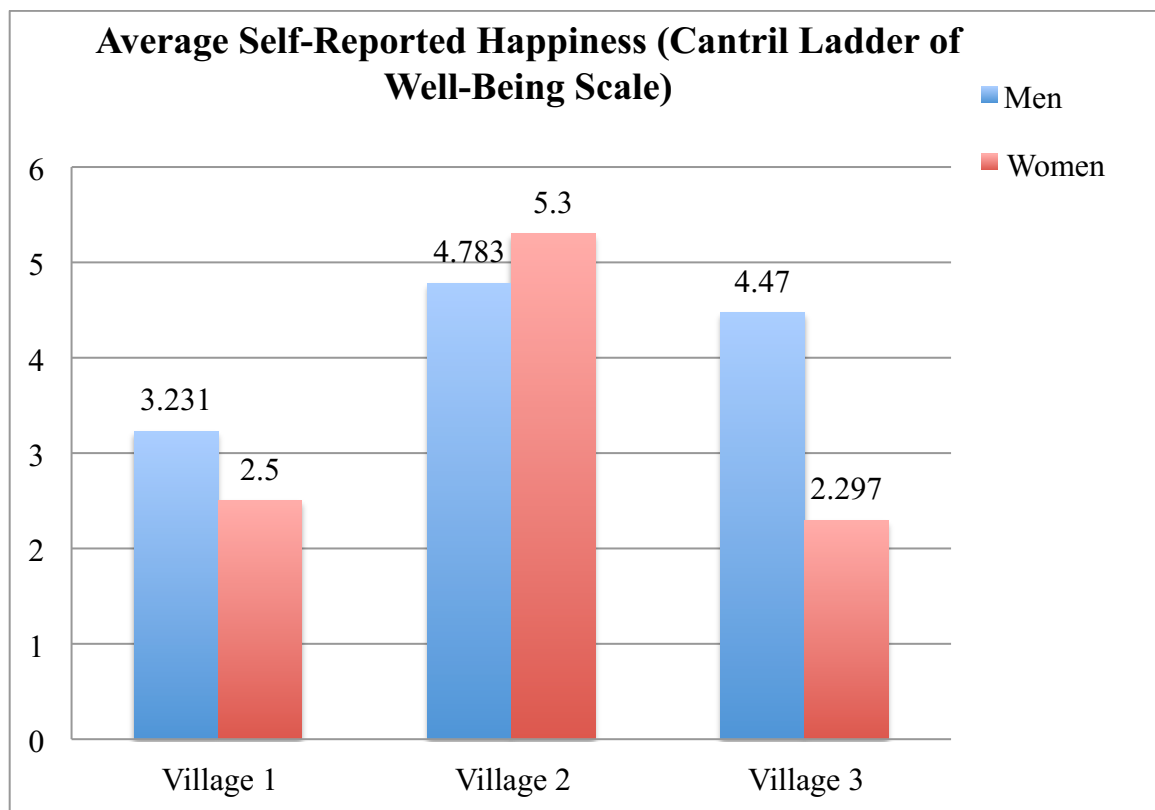
Group Discussion

The data from the study has shed light on a number of activities that don't follow the normal trends. Some of these outliers were explored during the group discussion portion of the study and the following section intends to present the most interesting information derived from the group discussions. The full transcript of the group discussions from each village can be found in Appendix A.

Comparison of Cantril Ladder Responses

The average self-reported happiness of men and women, derived from the Cantril Ladder of Well-Being Scale Question, for each of the three villages are displayed in Figure 14, below.

Figure 14: Average Self-Reported Happiness in Villages



The numbers reported in this particular region of Uganda vary from the average self-reported happiness of Uganda as a whole. The World Happiness Report, the leader in happiness research, also utilizes the Cantril Ladder of Well-Being Question to capture the happiness levels of people around the world. In the 2015 World Happiness Report, the data placed Uganda's national happiness average at 3.931.⁵⁴

Both the men and women of Village 1 fall below the national Ugandan average of 3.931 as reported by the World Happiness Report. Village 1 men's self-reported

⁵⁴ Helliwell, *World*.

happiness is 3.231, which is 0.7 lower than the national average. Village 1 women's self-reported happiness is 2.5, which is 1.431 lower than the national average.

Both the men and women of Village 2 fall above the national Ugandan average of 3.931 as reported by the World Happiness Report. Village 2 men's self-reported happiness is 4.783, which is 0.852 higher than the national average. Village 2 women's self-reported happiness is 5.3, which is a 1.369 higher than the national average.

The men of Village 3 fall above the national Uganda average of 3.931 as reported by the World Happiness Report. Village 3 men's self-reported happiness is 4.47, which is 0.539 higher than the national average. The women of Village 3 fall below the national Ugandan average of 3.931. Village 3 women's self-reported happiness is 2.297, which is 1.634 lower than the national average.

On average, the men of all three villages have a combined self-reported happiness of 4.161, which is 0.23 higher than the national average as reported by the World Happiness Report. On average, the women of all three villages have a combine self-reported happiness of 3.366, which is 0.565 lower than the national average as reported by the World Happiness Report.

As well, the Happy Planet Index, another leading index in happiness research, uses the Cantril Ladder of Well-Being Question in order to measure experienced well-being as one portion of their happiness index. The 2012 Happy Planet Index Report placed Uganda's national happiness average at 4.2.⁵⁵

Both the men and women of Village 1 fall below the national Ugandan happiness average of 4.2 as reported by the Happy Planet Index. Village 1 men's self-reported

⁵⁵ Happy, "The Data."

happiness is 3.231, which is 0.969 lower than the national average. Village 1 women's self-reported happiness is 2.5, which is 1.7 lower than the national average.

Both the men and women of Village 2 fall above the national Ugandan average of 4.2 as reported by the Happy Planet Index. Village 2 men's self-reported happiness is 4.783, which is 0.583 higher than the national average. Village 2 women's self-reported happiness is 5.3, which is a 1.1 higher than the national average.

The men of Village 3 fall above the national Uganda average of 4.2 as reported by the Happy Planet Index. Village 3 men's self-reported happiness is 4.47, which is 0.27 higher than the national average. The women of Village 3 fall below the national average of 4.2. Village 3 women's self-reported happiness is 2.297, which is 1.903 lower than the national average.

On average, the men of all three villages have a combined self-reported happiness of 4.161, which is 0.039 lower than the national average as reported by the Happy Planet Index. On average, the women of all three villages have a combined self-reported happiness of 3.366, which is 0.834 lower than the national average as reported by the Happy Planet Index.

During the group discussions conducted during the study, respondents in all three villages attributed their low self-reported happiness rating to a number of different factors including the lack of means to pay for children's school fees, poor health, lack of money. The following conversations occurred within the three villages about what factors contribute and take away from happiness.

Village1:

Question: "What would make your life happier?"

Answer: "What would make me happy for the rest of my life is to see that at least one of my children has gotten a higher education. If only God would open my way to make ways to allow my children to get educated, that will help me get a house eventually and open more doors.

A: "I feel unhappy because I keep producing, but the babies keep dying. It would make me so happy if I could produce a child."

A: "I am given strength because I have orphans that I am taking care of and it's giving me strength and courage because I am doing something good."

A: "I am a widow, I'm older, and I'm sick a lot. My children are not educated. If only I could find ways to educate my children and find ways to get rid of my sickness, I would be happy. I am praying to God that he gives me a good, permanent house."

A: "It would make me happy if I could take my children to school and afford the school fees."

A: "I am a widow and I am taking care of orphans and I wish I had a permanent house."

A: "I wish I had iron sheets in order to construct a house. My life would be ok if I had that."

A: "I pray that Village Enterprise and other NGOs will continue helping us. I wish for programs to keep helping us get resources to afford daily expenses and to help us take our children to school."

A: "I have been doing agriculture for some time now and I wish for it to be a big business that can support my family."

Q: "Why do you rate yourselves low on the Cantril Ladder?"

Answer: "I love agriculture, but at the end of the day when we get the produce and sell it, the middleman takes advantage of us. There is a market and we don't get the best price for the produce."

A: "Because I know I am poor and, even if I make some money, I still have so many things that I need to buy for my home. It does not make me happy."

Village 2:

Question: "For those of you who rated yourselves low on the Cantril Ladder, what would make you happier?"

Answer: “Money would make me happy. If I had money and I was lacking something at home, I would be able to just go and get it. I am not able to do that now.”

A: “I also wish I had money. If I had money, I would be able to pay my children’s school fees. And my children don’t go to school and it makes me very unhappy.”

A: “I would be happier if I had food. When you’re able to eat, you have a lot of energy and can do many household chores.”

A: “I would be happier if I had a graining mill. It would be another source of income for my family and I.”

A: “I would be happier if we had a TV that I could watch films on or watch people dancing on. That would make me very happy.”

A: “Having a wife at home would make me happy because she can do all the household things such as cooking, cleaning, etc. And I wouldn’t have to worry if my clothes are clean or not. Even looking at a woman makes me happy.”

Village 3:

Question: “For those of you who rated yourselves high on the Cantril Ladder, why?”

Answer: “I am very happy ever since Village Enterprise came and introduced the savings culture. I began saving after I started our business and I am able to buy things that I need now.”

A: “I am happy because I am able to have good clothes, I have good health, and I eat well. Money is almost never a problem because I am always able to access it.”

A: “I am happy because I was able to save up and purchase some animals for rearing and now I am able to buy some things now.”

A: “I had never heard of savings before Village Enterprise came here and now it makes me so happy that I am saving with a group.”

A: “I was taught a lot about agriculture and how to make it a business. Now I sell my sorghum and it makes me very happy that I was able to make a living from it.”

A: “I am happy because I can make my own bread and sell it. From the sales, I am able to make a profit and save. And then I am able to get the things I need. People enjoy my business. Because I had my business, I was very poor and now I’m not as poor and I feel like I have become something and I am somewhere in life.”

Question: “For those who rated themselves low on the Cantril Ladder, why?”

Answer: “Often times, my family and I fall sick and we are unable to get treatment. Anything I try to get for my family, I end up having to sell it to save a life.”

A: “There is a lack of food in my household. For example, I tried agriculture, but floods came and destroyed my crops.”

A: “I barely own any land, and that makes me poor and unhappy.”

A: “There is an overproduction of children. We have so many children and if many of them fall sick, we can’t take them to school because we can no longer afford the school fees.”

Question: “How does the overproduction of children affect your life?”

Answer: “I have to think a lot about the future of the children. I need to feed all of them.”

A: “I fall sick because I overthink about how to get money.”

A: “Clothing is almost non-existent”

A: “Where they sleep, there are no mosquito nets, so they always get malaria and have to go to the hospital.”

A: “I am not happy because I have so many children, my husband just broke his leg, and so now I am the only taking care of the whole family. I experience a lot of poverty still and I have to constantly think about what can be done.”

A: “I am not happy because my children are always ill and I am lacking the money to take them for treatment.”

A: “Overdrinking is a problem. Whatever little resources we get, the money goes to drinking and makes the rest of the family sad.”

A: “I have grown very old and I’m still not able to read and write. It was my wish my whole life to learn and it makes me sad that I haven’t. Sometimes when I try to travel to town, I can’t read the signs and it limits my movement.

A: “We don’t hear about most of the government programs that can help us because we don’t have a radio or TV to see the broadcast.”

Other factors that may indirectly affect happiness levels within the villages are suggested by the following dialogs about the relationship between men and women and how responsibilities have been distributed between genders:

Village 1:

Question: “Do you think men spend more time doing things they enjoy or do women?”

Answer: "I am able to see the trend. Overall, both men and women love agriculture. So in the morning, we all go to the garden together. Once the garden work is finished, we all back home together. But then the trend changes. Men rush to the shower while women organizes the compound and prepares lunch. While the woman is cooking, the man is resting."

A: "Men have grown up knowing that this is the role of the woman."

A: "But because you went to the garden together, don't you think the woman gets tired also?"

A: "It's more cultural that a woman's role is to cook for the man. This is something that we have grown up seeing. We see the woman cook for her husband."

Q: "If you cooked for your wife, would she be annoyed?"

A: Men: "Yes, she would be annoyed."

A: Women: "No, we would welcome the help."

Q: "Why do you think she would be annoyed?"

A: "Because it's a man who marries a woman and man is the head of the household so it is the woman's role to cook for her husband."

A: "If you expect to match up all the responsibilities at home after the garden work is finished, the man will say 'Who married who?' The man married the woman."

Q: "Do you think it would make you happier if you all worked together to accomplish daily tasks?"

A: "There are actually certain things that men would be able to do while the woman cooks, but they don't actually end up doing it so the woman does it anyway. For example, sweeping the compound and grazing animals."

A: "Many men have taken responsibility to bath children even though it is not something normal in the culture."

A: "Also, men help fetch water because they are able to put the water jerry cans on a bicycle. A woman can only hold one jerry can on her head at a time."

A: "At times when men rest, they are sitting down to plan for the family. And sometimes they have to leave the compound in order to find resources to help sustain the household, like money and food."

A: "There are activities that women are not supposed to be doing, such as grazing animals, but they sometimes end up doing those things because men are not doing them."

Q: "So do you think it would make you happier if you worked together?"

A: Collective: “Yes.”

A: “As a woman, if my husband helped with more activities, I would not feel the burden of all of the work just on myself.”

A: “We are people in the poor category. We cannot afford a housekeeper so our wives serve both purposes – housekeeper and wife.”

Village 2:

Question: “I noticed that you all really enjoy sleeping. Why is that?”

Answer: “Because I like making babies. This is the time I have with my wife and we produce our children at that time.”

A: “As a woman, I enjoy sleeping because after the whole day of work, I have time to rest. Men really want us at this time, but we just want to sleep.”

A: “Women do a lot of things, why can’t you let us rest?”

A: “No, we can’t allow that because that’s part of a woman’s work also – to sleep with her husband and produce children.”

Q: “Do men and women do different or similar things throughout the day?”

A: Collective – “Different.”

A: “There are things that women can’t do. Men hunt and women can’t because they can’t run fast or aim.”

Q: “Do you think men spend more time doing things they enjoy than women do?”

A: “Women don’t have a choice. It’s mandatory for them to do these things. A man can go to the garden and then go bath and go drinking and they don’t have other responsibilities.”

Q: “Why is it ‘mandatory’?”

A: “If a man has married, he cannot cook. The reason why he marries is so his wife will cook and clean for him. She would get really mad if her husband tried to help with these things.”

Q: “Women, would you get mad if your husband tried to help?”

A: “I wouldn’t be mad because then I would feel like my husband is helping me out and then I can rest. I would feel happy because at least one duty is covered and taken care of and I can focus on the other things I need to do.”

Q: “Does the balance of responsibilities make you happy?”

A: "The activities that men do seem like they're more enjoyable but there are other things that take effort and work. For example, grazing animals can be hard work."

A: "The balance makes us happy. We understand that there are certain things that my wife can't do and vice versa. We have a mutual understanding between us about the balance of responsibilities."

A: "I look at the nature of the work and understand why it is divided the way it is, but I would welcome the help from my husband."

Q: "Do you think the division of responsibilities can change?"

A: "It has already changed. There are certain things that women used to do that men do now. For example, women used to do malt roasting to make the local brew but now men do it to help the women out."

A: "Sometimes we wash clothes, collect firewood, and bath the children to help our wives."

A: "Sometimes men can even bath their wives if they are sick and cook for them."

Q: "Do you think your happiness rating on the Cantril Ladder would go up if everyone worked together more?"

A: "Yes, because we would feel like we are doing things collectively and I wouldn't have the thought that this is all my work. We would share ideas and do work together and that would make me happy."

A: "Yes, I think we would be happier."

Village 3:

Question: "Do you think men spend more time doing things they enjoy than women do?"

Answer: "Men do more things that they enjoy than women."

A: "But so do women; they also do things they enjoy."

A: "Men spend more time doing things they enjoy."

A: "Women do more work."

A: "Most men go to drinking joints and play cards during the day. More men use their time on leisure activities."

Q: "Why do you think that happens?"

A: "Because women have a lot of housework and don't have time to do anything else enjoyable."

A: "The man has authority over everything at home, including women."

A: "Women do more work."

A: "A woman has the fear that if all of the household responsibilities are not finished, her husband will beat her." (Most of the group agrees with this).

Q: "What is the balance of responsibilities between men and women?"

A: "Men take more authority but women have more responsibilities."

Q: "Do you think this balance of responsibilities can change over time?"

A: "It can never change."

A: "It can happen. During the dry season, there is no garden work and everyone is free."

A: "We now have International Women's Day where women are supposed to be free and celebrate. But instead, we end up having a ton of work to do."

A: "You cannot change culture. This is why we're married."

A: "Until God himself tells the men to help the women, the men will not help us."

Q: "Men- are you happy with the way things are?"

A: "I am happy. Ladies take care of us and we get to rest."

A: "Without a woman, there's no home. The bush would grow up to the side of the house and no one would take care of it."

Q: "Women – are you happy with the way things are?"

A: "I am not happy. It's a curse from God. We have to be submissive to our husbands."

Q: "Would you be happier if you shared the responsibilities?"

A: Collective – "Yes."

A: "It would be light."

A: "Even if a man simply bought a woman clothes, it would be so nice. But women buy everything, including the utensils used to cook."

A: "Yes. There are some types of work that, if done together, would be finished much quicker than if a woman had to do it alone."

Q: "Why do you think this doesn't happen?"

A: "Because there's no unity and people don't work together."

Chapter IV

Conclusion

The need to investigate time use patterns within a community is essential in order to ensure the effective and efficient implementation of intervention programs across the world. Without taking the time to understand the gender-differentiated time use patterns, organizations and governments can run the risk of perpetuating or even escalating time poverty in certain communities. Since household economy places an unequal, heavy burden on women more so than men, some policies and programs may have an adverse affect on time poverty alleviation and may unknowingly increase the time burden on women.

This thesis sought to find the answer to a number of questions concerning the way in which rural Ugandans spend their average days and how much happiness is experienced from these activities. How do rural Ugandans spend their average days? Do women spend more time doing things that make them happy or do men? The study findings offer a glimpse into the daily lives of the individuals living in three different villages in rural Uganda. Extensive data analysis suggests that, within each village, on average, the daily lives of both men and women in rural Uganda are spent doing activities that bring less happiness than the amount of time spent doing them.

Further, the data collected in this study exposed certain time use trends within rural communities of Uganda that have great implications for policymakers. From this data, policy prescriptions can be made regarding the ways in which time can be

reallocated in order to maximize the happiness of men and women within these communities. Specifically, there were a number of activities that showed an opposite relationship between time spent and happiness that men can do more of and women can do less of, or vice versa, in order to optimize everyone's happiness. For example, in Village 1, there were six activities that women reportedly engage in where they feel a greater amount of happiness than the amount of time they spend doing them, whereas men reportedly spend a greater amount of time on them than the amount of happiness they feel when engaging in them. These activities include the following: 1) listening to the radio, 2) using the restroom, 3) doing business/savings, 4) washing clothes, 5) cooking, and 6) bathing. And the inverse relationship can be said about the following activities: 1) fishing and 2) grazing animals. What this data suggests is that women should listen to the radio more, use the restroom more, do more business, wash clothes more, cook more, and bath more in order to allow men to do less of these activities, which, in turn, will make both men and women happier. Men should spend more time fishing and grazing animals, allowing women to do less of those activities, which would lead to both men and women being happier.

In Village 2, there were five activities that women reportedly engage in where they feel a greater amount of happiness than the amount of time they spend doing them, whereas men reportedly spend a greater amount of time on them than the amount of happiness they feel when engaging in them. These activities include the following: 1) slashing compound, 2) playing with children, 3) hunting, 4) fishing, and 5) washing utensils. Similarly, there are six activities where men experience a greater amount of happiness than the amount of time spent doing them, whereas women experience the

opposite: 1) greeting the neighbors/family, 2) selling produce, 3) taking children to school, 4) buying food from market, 5) sleeping, and 6) garden work. This data suggests the need for a shift in responsibilities where women spend more time slashing the compound, playing with children, hunting, fishing, and washing utensils, which, in turn, will make both men and women happier. The data also suggests a shift in responsibilities where men spend more time greeting the neighbors/family, selling produce, taking children to school, buying food from the market, sleeping, and doing garden work. This shift would allow women to do less of these activities and, in turn, would make both men and women happier.

In Village 3, there were five activities mentioned that women derive a greater amount of happiness from than the amount of time spent doing them, whereas men spend more time on them than the amount of happiness felt from engaging in them. These include: 1) making the bed, 2) playing with children, 3) fetching water, 4) praying, and 5) grazing animals. Inversely, there are four activities during which men experience more happiness than the amount of time they spend doing the activities, where the opposite is true for women. These include: 1) resting, 2) buying food from market, 3) collecting firewood, and 4) garden work. Therefore, if women spend more time making the bed, playing with children, fetching water, praying, and grazing animals, men will have to spend less time doing those activities, and both men and women will be happier. This is also true if men spend more time resting, buying food from the market, collecting firewood, and doing garden work, allowing women to spend less time doing these activities, and, in turn, creating more happiness for both men and women.

The abovementioned time use trends are a potential area of intervention that organizations working in rural Uganda can focus on in order to increase happiness within these communities and to promote gender time-use equality. In conclusion, on average, women spent more time on labor activities than men do. Women and men spent almost the same amount of time on non-labor activities, on average across all three villages. The data trends can assist policymakers in creating programs that tackle these inequalities.

There are a number of new questions that have emerged from this research. First, the direction of causality between time spent on certain activities and average self-reported happiness for certain activities is still unknown. For example, does spending more time on garden work make you happy or does being happy make you spend more time on garden work? An exploration of causality can further assist policymakers in creating sustainable and appropriate poverty alleviating programs. Another question that emerged from this research involves the category of extreme poverty. Do those living in extreme poverty report lower levels of happiness than the national average? Also, how do the happiness ratings of the three villages in rural Uganda included in this study compare to the happiness ratings of others living in extreme poverty in other areas of Uganda? Lastly, can these time use trends also be found in other areas of Uganda or do activities vary from region to region? For example, these three villages have a very close proximity to many lakes, suggesting that they would spend more time fishing than other villages in different areas of Uganda.

Research Limitations and Study Improvements

The first observed limitation of this study is a bias caused by the group-setting structure of the study. In a group setting, participants are potentially influenced by other participants' responses or judgments, which may create a bias in the data. For example, if there is a negative stigma attached to drinking alcohol, respondents would under-report the amount of time they spend on drinking alcohol and the amount of happiness that they feel from drinking alcohol so as to avoid judgment from the rest of the community. If each individual completed the activities privately, the embarrassment of answering such questions honestly would potentially disappear, and more representative data would be collected.

The next study limitation is derived from the sequence of paperclip activities. The participants were asked to allocate their paperclips representing time into the first set of labeled paper bags. Then they were asked to allocate their paperclips representing happiness into the second set of labeled paper bags. In all three villages, the time allocation came before the happiness allocation and, with this, their time responses may have influenced or changed their happiness responses.

Next, the official language of Uganda is English, however this thesis focused solely on rural areas of Uganda where the populations spoke a number of different local languages. Very few individuals had knowledge of the English language, as most had never received any formal education due to the cost of attending school. Therefore, each step of the study had to be translated from English into the local language. This took much more time than anticipated, as it was not only as simple as translating from one language to another, but translating into a concept that was understood by the local

community. In order to improve this setback, I would label the bags with pictures during the participatory portions of the study instead of labeling the bags in English words and needing each one to be translated to the group as they distributed their paperclips.

Also, as the respondents were Village Enterprise program participants, there was a noticeable trend where respondents were over-exaggerating how bad their financial and well-being situation was in hopes of receiving more aid from Village Enterprise. In order to solve this, I would use community data to randomly select respondents from a list of those classified as living in extreme poverty in a number of villages across different regions of Uganda instead of Village Enterprise program participants.

Also, I would increase the sample size so as to capture more responses and, in turn, be able to determine more widespread time use trends across Uganda. First, I would record the responses of each individual instead of grouping men and women together. This would increase the number of responses from two per village to forty-five per village, leading to a much larger data set that can be analyzed. Also, I would increase the sample size from three villages to at least 30 villages located in a number of districts in rural Uganda in order to capture the different activities that people engage in across a wider area of the country.

Lastly, the group discussion portion was one of the most interesting and important portions of the study because the responses explained and reinforced the trends observed in the data. Therefore, I would break the study into two days instead of one. The first day would include the paperclip activities, the counting of the paperclips, and an assessment of the trends found within the data. The second day would be solely for the administration of the group discussion portion of the study. This methodology would

allow for a more in-depth exploration of interesting trends found within the data. Also, as the paperclip activities take a significant amount of time and energy to complete, the participants would be well-rested and more enthusiastic about the group discussion portion if the study was two days long and would potentially provide more critical information that supports the trends found within the data.

Larger Implications

From this type of study, organizations and researchers are better able to understand the way in which responsibilities are distributed and how happy these time use trends make the individuals living in these communities. This study provides NGOs, nonprofit organizations, and governmental organizations in rural Uganda an opportunity to create intervention programs that mesh with the day-to-day lives of the populations they wish to aid and programs that target the inequalities between sexes within these communities in order to eliminate gender time poverty in these areas.

Appendix A

Full Transcript of Village 1, 2, and 3 Group Discussions

Village 1 Group Discussion

Upon the completion of the activities, a semi-structured discussion took place with all 43 people respondents. The following is the dialog that occurred between the members of the community:

Question: "What would make your life happier?"

Answer: "What would make me happy for the rest of my life is to see that at least one of my children has gotten a higher education. If only God would open my way to make ways to allow my children to get educated, that will help me get a house eventually and open more doors.

A: "I feel unhappy because I keep producing, but the babies keep dying. It would make me so happy if I could produce a child."

A: "I am given strength because I have orphans that I am taking care of and it's giving me strength and courage because I am doing something good."

A: "I am a widow, I'm older, and I'm sick a lot. My children are not educated. If only I could find ways to educate my children and find ways to get rid of my sickness, I would be happy. I am praying to God that he gives me a good, permanent house."

A: "It would make me happy if I could take my children to school and afford the school fees."

A: "I am a widow and I am taking care of orphans and I wish I had a permanent house."

A: "I wish I had iron sheets in order to construct a house. My life would be ok if I had that."

A: "I pray that Village Enterprise and other NGOs will continue helping us. I wish for programs to keep helping us get resources to afford daily expenses and to help us take our children to school."

A: "I have been doing agriculture for some time now and I wish for it to be a big business that can support my family."

Question: "What do you enjoy about garden work?"

A: "From agriculture we are able to sell our produce, get money, and with the remaining produce, we are able to feed our family. With the money, we are able to send our kids to school."

A: "Garden work helps me with problems at the household level. Once we have food, there's nothing else to worry about after that."

A: "Because this area does not have a lot of business happening, the only business we can think of is an agricultural business."

A: "My parents were part of a generation that did not go to school. I love agriculture because I have seen that it has made it possible to send my children to school."

Q: "Do you think you spend more time doing things you enjoy or doing things that you don't enjoy?"

A: "I spend more time doing things I enjoy than doing things I don't enjoy."

Q: "Then why do you rate yourselves low on the Cantril Ladder?"

A: "I love agriculture, but at the end of the day when we get the produce and sell it, the middleman takes advantage of us. There is a market and we don't get the best price for the produce."

A: "Because I know I am poor and, even if I make some money, I still have so many things that I need to buy for my home. It does not make me happy."

Q: "Garden Work is a strenuous activity and yet you are happy doing it. Why aren't you as happy resting?"

A: "I would rather be doing business with my produce than resting because doing business solves problems at home."

A: "If you just rest, you're just going to lose time to do productive things. There will come a time to rest at the end of the day."

A: "Disease and illness are emergencies, so the time you spend taking a rest is wasting time that can be used to take care of emergencies."

Q: "What makes you so happy about praying?"

A: "Once you pray, you feel relieved even if you have a lot of problems. You feel that sooner or later, you'll have an answer to all of your prayers."

A: "I feel the power of prayer even when I'm very sick. I feel better and I feel like I can sleep better."

A: "From prayer, I get hope."

Q: "Do you think men spend more time doing things they enjoy or do women?"

A: "I am able to see the trend. Overall, both men and women love agriculture. So in the morning, we all go to the garden together. Once the garden work is finished, we all back home together. But then the trend changes. Men rush to the shower while women organizes the compound and prepares lunch. While the woman is cooking, the man is resting."

A: "Men have grown up knowing that this is the role of the woman."

A: "But because you went to the garden together, don't you think the woman gets tired also?"

A: "It's more cultural that a woman's role is to cook for the man. This is something that we have grown up seeing. We see the woman cook for her husband."

Q: "If you cooked for your wife, would she be annoyed?"

A: Men: "Yes, she would be annoyed."

A: Women: "No, we would welcome the help."

Q: "Why do you think she would be annoyed?"

A: "Because it's a man who marries a woman and man is the head of the household so it is the woman's role to cook for her husband."

A: "If you expect to match up all the responsibilities at home after the garden work is finished, the man will say 'Who married who?' The man married the woman."

Q: "Do you think it would make you happier if you all worked together to accomplish daily tasks?"

A: "There are actually certain things that men would be able to do while the woman cooks, but they don't actually end up doing it so the woman does it anyway. For example, sweeping the compound and grazing animals."

A: "Many men have taken responsibility to bath children even though it is not something normal in the culture."

A: "Also, men help fetch water because they are able to put the water jerry cans on a bicycle. A woman can only hold one jerry can on her head at a time."

A: "At times when men rest, they are sitting down to plan for the family. And sometimes they have to leave the compound in order to find resources to help sustain the household, like money and food."

A: "There are activities that women are not supposed to be doing, such as grazing animals, but they sometimes end up doing those things because men are not doing them."

Q: "So do you think it would make you happier if you worked together?"

A: Collective: "Yes."

A: "As a woman, if my husband helped with more activities, I would not feel the burden of all of the work just on myself."

A: "We are people in the poor category. We cannot afford a housekeeper so our wives serve both purposes – housekeeper and wife."

Village 2 Group Discussion

The following is the group discussion that followed the activities:

Q: "For those of you who rated yourselves low on the Cantril Ladder, what would make you happier?"

A: "Money would make me happy. If I had money and I was lacking something at home, I would be able to just go and get it. I am not able to do that now."

A: "I also wish I had money. If I had money, I would be able to pay my children's school fees. And my children don't go to school and it makes me very unhappy."

A: "I would be happier if I had food. When you're able to eat, you have a lot of energy and can do many household chores."

A: "I would be happier if I had a graining mill. It would be another source of income for my family and I."

A: "I would be happier if we had a TV that I could watch films on or watch people dancing on. That would make me very happy."

A: "Having a wife at home would make me happy because she can do all the household things such as cooking, cleaning, etc. And I wouldn't have to worry if my clothes are clean or not. Even looking at a woman makes me happy."

Q: "I noticed that you all really enjoy sleeping. Why is that?"

A: "Because I like making babies. This is the time I have with my wife and we produce our children at that time."

A: "As a woman, I enjoy sleeping because after the whole day of work, I have time to rest. Men really want us at this time, but we just want to sleep."

A: "Women do a lot of things, why can't you let us rest?"

A: "No, we can't allow that because that's part of a woman's work also – to sleep with her husband and produce children."

Q: "Do you think you spend more time doing things you enjoy or things you don't enjoy?"

A: Collective - "If we don't enjoy doing something, we would spend less time doing it. We spend more time doing things we enjoy."

Q: "Tell me more about why you enjoy garden work."

A: "When there is plenty of rain, I get to watch a lot of my crops growing. And then harvesting time comes and that makes me very happy because I am able to produce something."

Q: "Do men and women do different or similar things throughout the day?"

A: Collective – "Different."

A: "There are things that women can't do. Men hunt and women can't because they can't run fast or aim."

Q: "What are other activities not included in the list of twenty-five activities that make you happy?"

A: "I wish I had a motorcycle so I could take people to the market."

A: "Making ropes. If I had more time, I would make ropes because that makes me happy."

A: "Praying makes me happy. Whatever I pray for God can easily answer my prayer so I feel happy."

Q: "For those of you who rated yourselves high on the Cantril Scale, why?"

A: "I have learned so much that I previously did not know. I have received a lot of information that I didn't have before through Village Enterprise."

A: "I am a little happy because now I have a goat at home."

A: "I am happy because I have seen a lot of unity without our village that never used to exist. We're united in saving and sharing ideas and that makes me happy."

Q: "For those of you who rated yourselves low on the Cantril Scale, why?"

A: "I am worried that when New Year comes, how am I going to take my children to school? I am very worried about being able to pay the school fees."

A: "I have nothing. I don't have a woman; I don't have a house to sleep in. I only have the hope of the Village Enterprise program."

Q: "Do you think men spend more time doing things they enjoy than women do?"

A: "Women don't have a choice. It's mandatory for them to do these things. A man can go to the garden and then go bath and go drinking and they don't have other responsibilities."

Q: "Why is it 'mandatory'?"

A: "If a man has married, he cannot cook. The reason why he marries is so his wife will cook and clean for him. She would get really mad if her husband tried to help with these things."

Q: "Women, would you get mad if your husband tried to help?"

A: "I wouldn't be mad because then I would feel like my husband is helping me out and then I can rest. I would feel happy because at least one duty is covered and taken care of and I can focus on the other things I need to do."

Q: "Does the balance of responsibilities make you happy?"

A: "The activities that men do seem like they're more enjoyable but there are other things that take effort and work. For example, grazing animals can be hard work."

A: "The balance makes us happy. We understand that there are certain things that my wife can't do and vice versa. We have a mutual understand between us about the balance of responsibilities."

A: "I look at the nature of the work and understand why it is divided the way it is, but I would welcome the help from my husband."

Q: "Do you think the division of responsibilities can change?"

A: "It has already changed. There are certain things that women used to do that men do now. For example, women used to do malt roasting to make the local brew but now men do it to help the women out."

A: "Sometimes we wash clothes, collect firewood, and bath the children to help our wives."

A: "Sometimes men can even bath their wives if they are sick and cook for them."

Q: "Do you think your happiness rating on the Cantril Ladder would go up if everyone worked together more?"

A: "Yes, because we would feel like we are doing things collectively and I wouldn't have the thought that this is all my work. We would share ideas and do work together and that would make me happy."

A: "Yes, I think we would be happier."

Q: "How can this become a reality?"

A: "If there's a mutual understanding that we're living peacefully it's possible to convince my husband to help and to share ideas. If he is already happy with me, it would

be easier for me to ask him for more help. If we are fighting though, I would not ask because I want to keep the peace in the household.”

A: “Yes, you would be wasting your time asking if there is no peace in the household because asking for help may just lead to more problems.”

Village 3 Group Discussion

The following dialog is the group discussion that followed the activities:

Q: “For those of you who rated yourselves high on the Cantril Ladder, why?”

A: “I am very happy ever since Village Enterprise came and introduced the savings culture. I began saving after I started our business and I am able to buy things that I need now.”

A: “I am happy because I am able to have good clothes, I have good health, and I eat well. Money is almost never a problem because I am always able to access it.”

A: “I am happy because I was able to save up and purchase some animals for rearing and now I am able to buy some things now.”

A: “I had never heard of savings before Village Enterprise came here and now it makes me so happy that I am saving with a group.”

A: “I was taught a lot about agriculture and how to make it a business. Now I sell my sorghum and it makes me very happy that I was able to make a living from it.”

A: “I am happy because I can make my own bread and sell it. From the sales, I am able to make a profit and save. And then I am able to get the things I need. People enjoy my business. Because I had my business, I was very poor and now I’m not as poor and I feel like I have become something and I am somewhere in life.”

Q: “For those who rated themselves low on the Cantril Ladder, why?”

A: “Often times, my family and I fall sick and we are unable to get treatment. Anything I try to get for my family, I end up having to sell it to save a life.”

A: “There is a lack of food in my household. For example, I tried agriculture, but floods came and destroyed my crops.”

A: “I barely own any land, and that makes me poor and unhappy.”

A: “There is an overproduction of children. We have so many children and if many of them fall sick, we can’t take them to school because we can no longer afford the school fees.”

Q: “How does the overproduction of children affect your life?”

A: “I have to think a lot about the future of the children. I need to feed all of them.”

A: “I fall sick because I overthink about how to get money.”

A: “Clothing is almost non-existent”

A: “Where they sleep, there are no mosquito nets, so they always get malaria and have to go to the hospital.”

A: "I am not happy because I have so many children, my husband just broke his leg, and so now I am the only taking care of the whole family. I experience a lot of poverty still and I have to constantly think about what can be done."

A: "I am not happy because my children are always ill and I am lacking the money to take them for treatment."

A: "Overdrinking is a problem. Whatever little resources we get, the money goes to drinking and makes the rest of the family sad."

A: "I have grown very old and I'm still not able to read and write. It was my wish my whole life to learn and it makes me sad that I haven't. Sometimes when I try to travel to town, I can't read the signs and it limits my movement."

A: "We don't hear about most of the government programs that can help us because we don't have a radio or TV to see the broadcast."

Q: "What are some activities, not included in the list of twenty-five activities, that make you happy?"

A: "I am a tailor and I really want to learn the modern ways of tailoring but I don't have access to TV or a computer to watch videos."

A: "I really enjoy knitting. I knit during my free time while I am resting and I make sweaters and other clothing."

A: "I enjoy playing football and basket weaving."

Q: "Do you think you spend more time doing things you enjoy than things you don't enjoy?"

A: "I spend more time doing things I enjoy."

A: "But people are not happy."

A: "But that's not true. When you go to the garden, you come back happy because you have accomplished something."

Q: "Do you think men spend more time doing things they enjoy than women do?"

A: "Men do more things that they enjoy than women."

A: "But so do women; they also do things they enjoy."

A: "Men spend more time doing things they enjoy."

A: "Women do more work."

A: "Most men go to drinking joints and play cards during the day. More men use their time on leisure activities."

A: "

Q: "Why do you think that happens?"

A: "Because women have a lot of housework and don't have time to do anything else enjoyable."

A: "The man has authority over everything at home, including women."

A: "Women do more work."

A: "A woman has the fear that if all of the household responsibilities are not finished, her husband will beat her." (Most of the group agrees with this).

Q: "What is the balance of responsibilities between men and women?"

A: "Men take more authority but women have more responsibilities."

Q: "Do you think this balance of responsibilities can change over time?"

A: "It can never change."

A: "It can happen. During the dry season, there is no garden work and everyone is free."

A: "We now have International Women's Day where women are supposed to be free and celebrate. But instead, we end up having a ton of work to do."

A: "You cannot change culture. This is why we're married."

A: "Until God himself tells the men to help the women, the men will not help us."

Q: "Men- are you happy with the way things are?"

A: "I am happy. Ladies take care of us and we get to rest."

A: "Without a woman, there's no home. The bush would grow up to the side of the house and no one would take care of it."

Q: "Women – are you happy with the way things are?"

A: "I am not happy. It's a curse from God. We have to be submissive to our husbands."

Q: "Why do you get married?"

A: "To fulfill everyone's desires in the world."

A: "Marriage was put here by God. Adam and Eve were married. That's why we get married."

A: "I need to fulfill all of my desires as a man."

A: "The curse of having sex."

A: "To have children that will help me when I get old."

Q: "Would you be happier if you shared the responsibilities?"

A: Collective – "Yes."

A: "It would be light."

A: "Even if a man simply bought a woman clothes, it would be so nice. But women buy everything, including the utensils used to cook."

A: "Yes. There are some types of work that, if done together, would be finished much quicker than if a woman had to do it alone."

Q: "Why do you think this doesn't happen?"

A: "Because there's no unity and people don't work together."

Q: "Do you think there is a way to make it happen?"

A: "The challenge we face is the price for a bride. The parents of a woman take everything and leave you with nothing. Then you bring your wife home so if she refuses to do things for you, you feel very unhappy."

A: "Sometimes men dodge the work because of this because they feel as though the wife owes them because they gave her family so much in order to marry her. The wife has to repay the husband for what he gave to her family. And this is also why there is a lot of domestic abuse."

Q: "What do you think can be done to reduce these divisions?"

A: "If we share issues in the household and share ideas on how to fix them, this can also stop domestic abuse."

A: "Respecting one another."

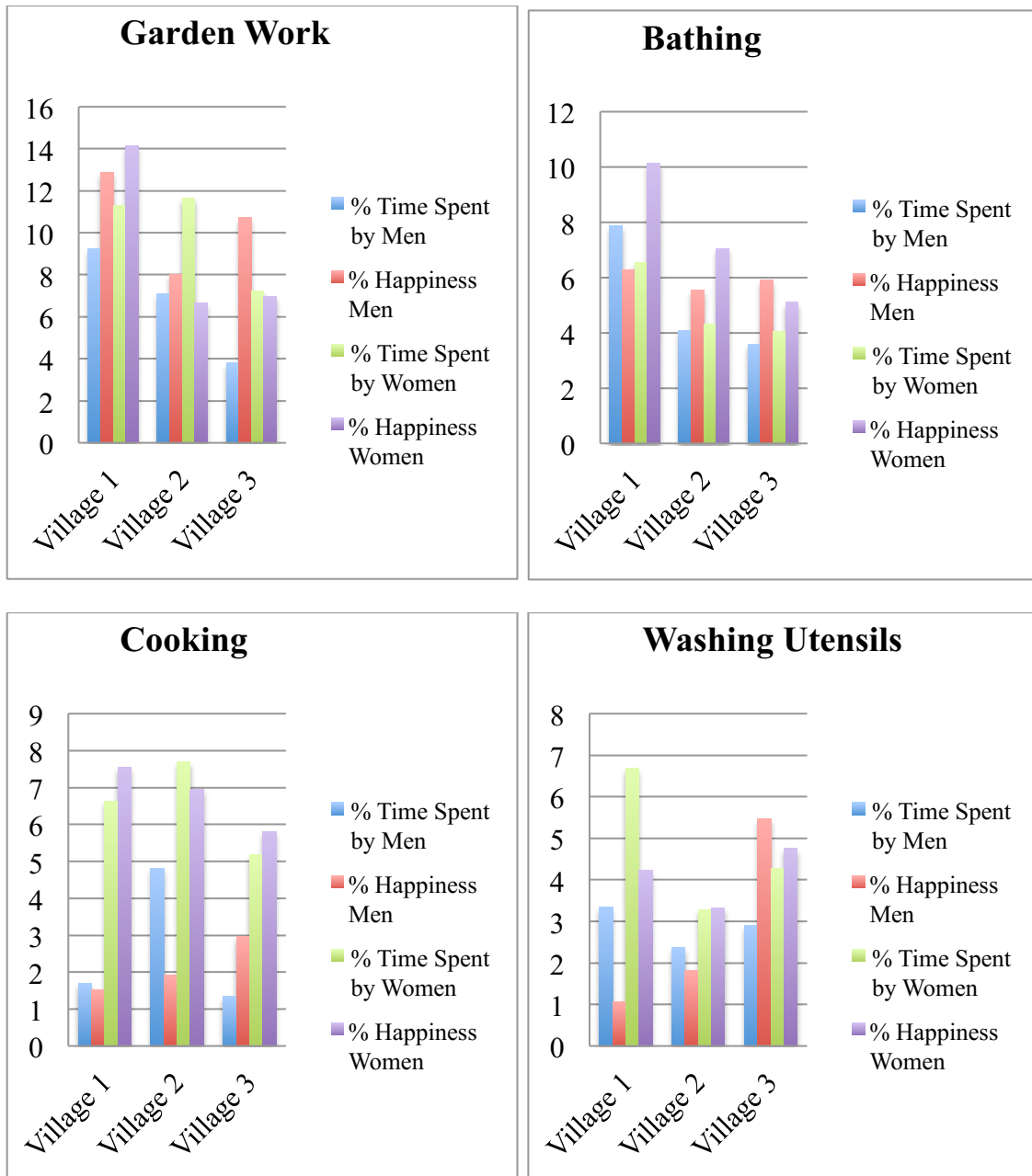
A: "A man should be able to provide almost everything in the family."

A: "Some source of income should be there within the household."

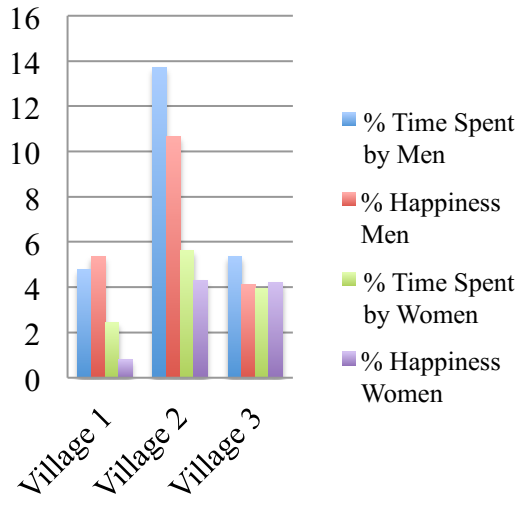
A: "Keeping the peace in the household. If you see something bad that your husband has done, you have to stay calm and then speak calmly."

Appendix B

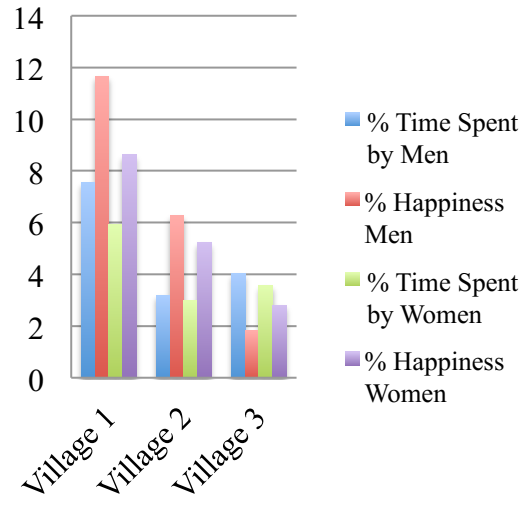
Graphs of Individual Activities



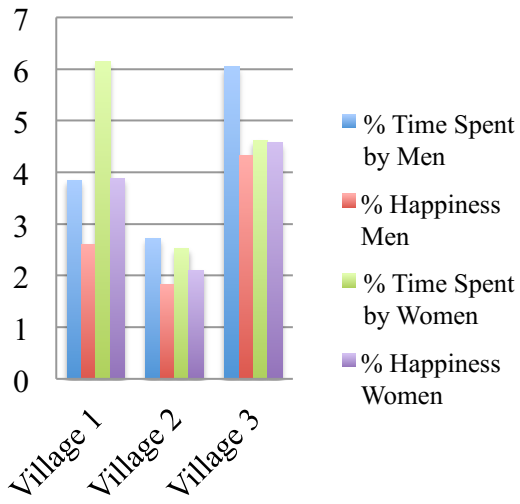
Grazing Animals



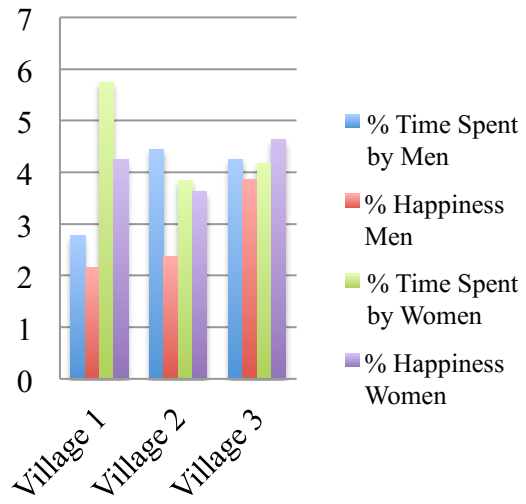
Praying



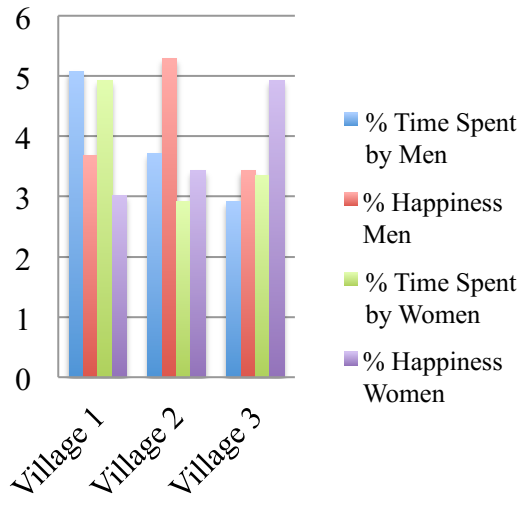
Sweeping Compound



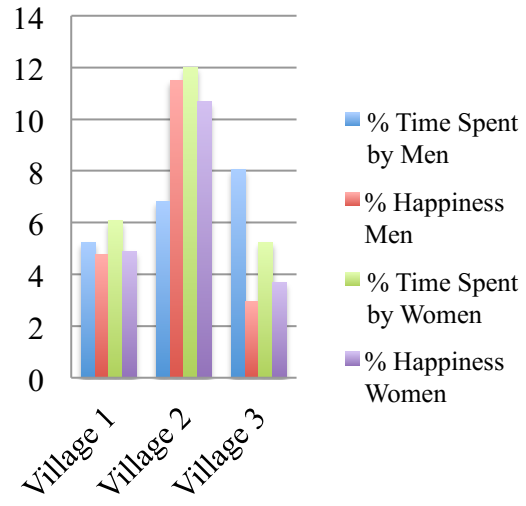
Fetching Water



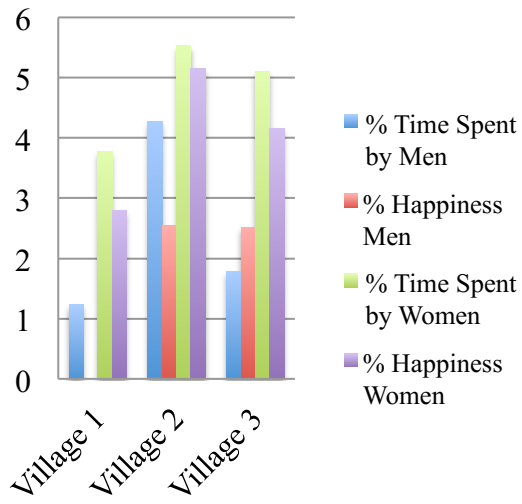
Brushing Teeth



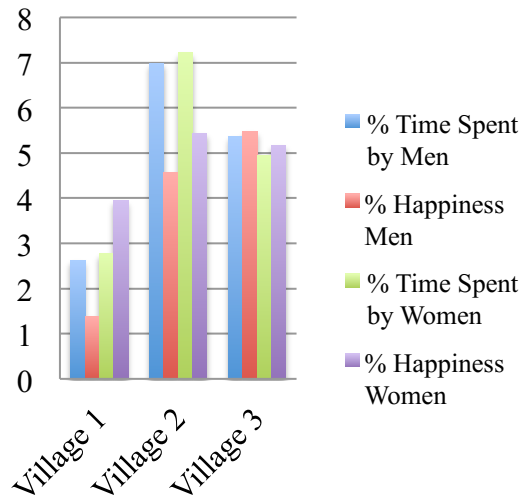
Sleeping



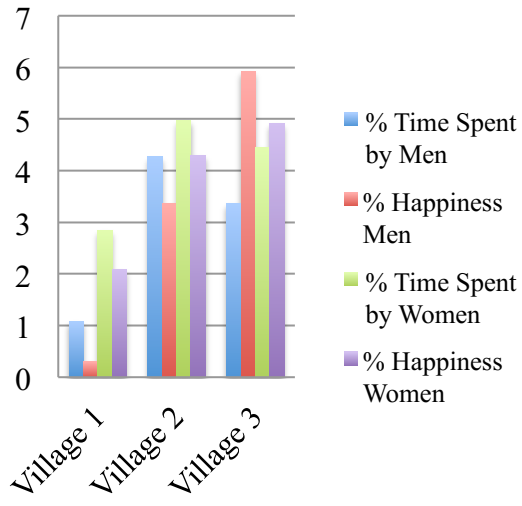
Collecting Firewood



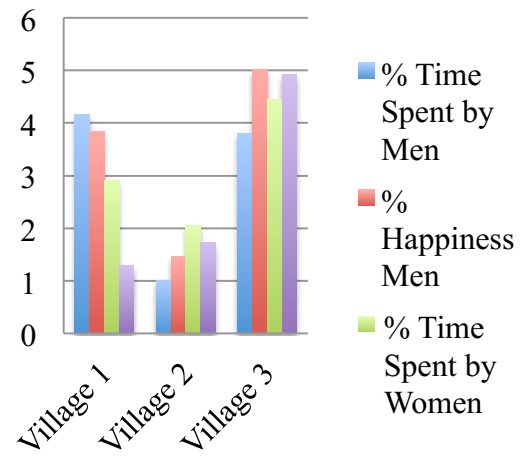
Washing Clothes



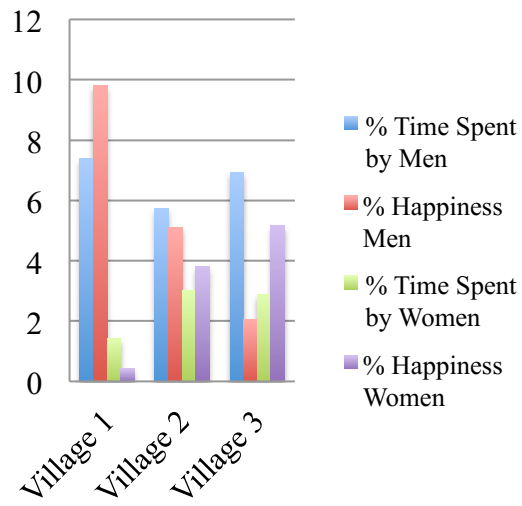
Bathing Children



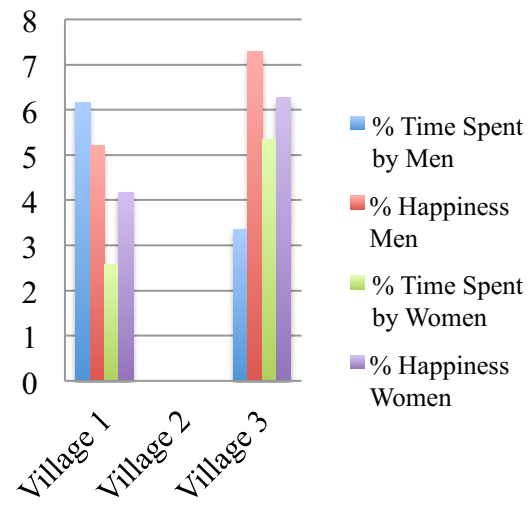
Buying Food from Market

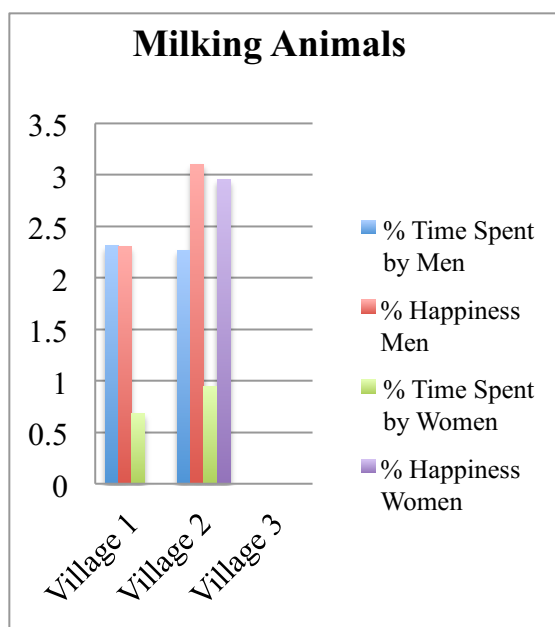
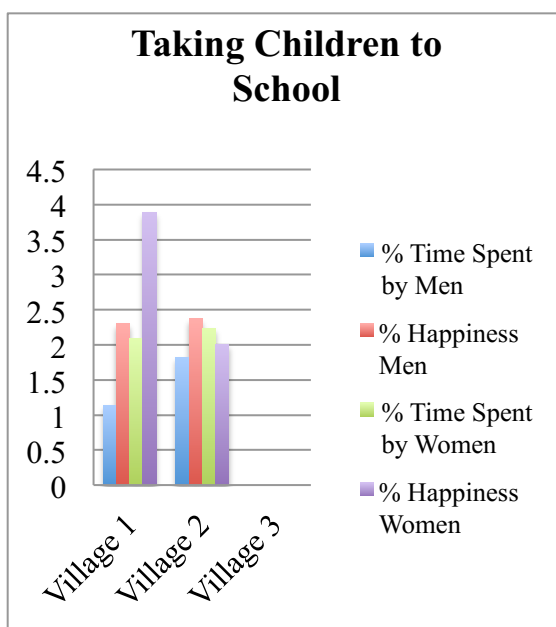
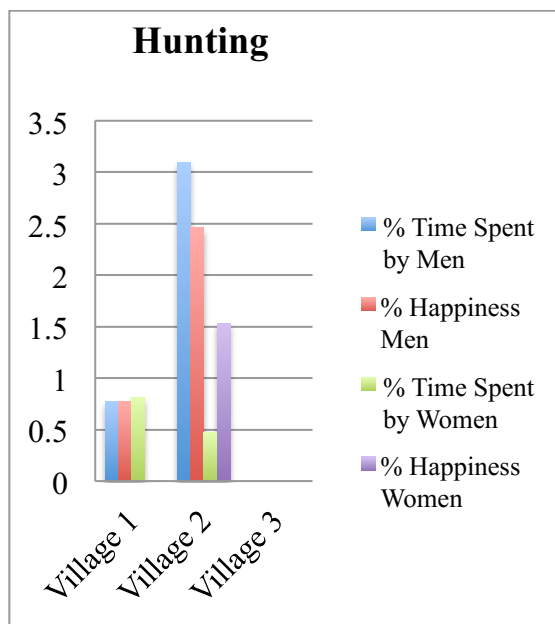
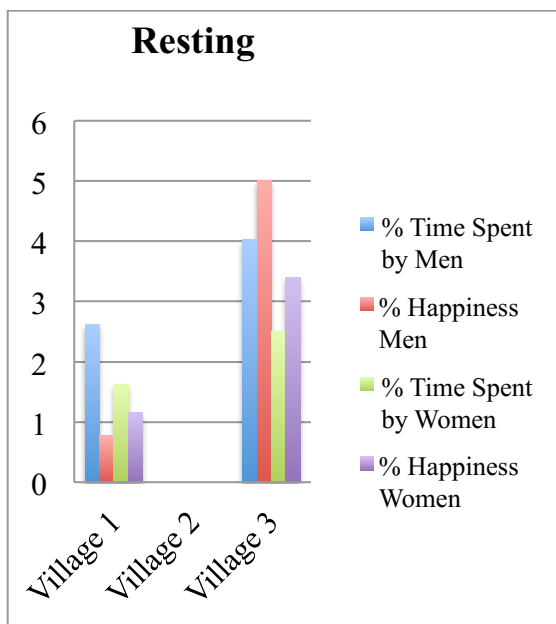


Fishing

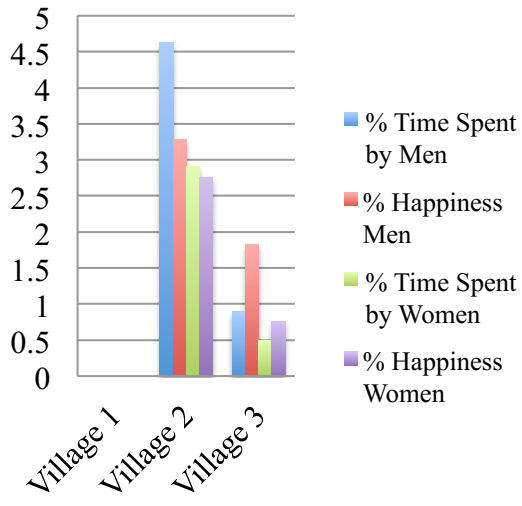


Doing Business/Savings

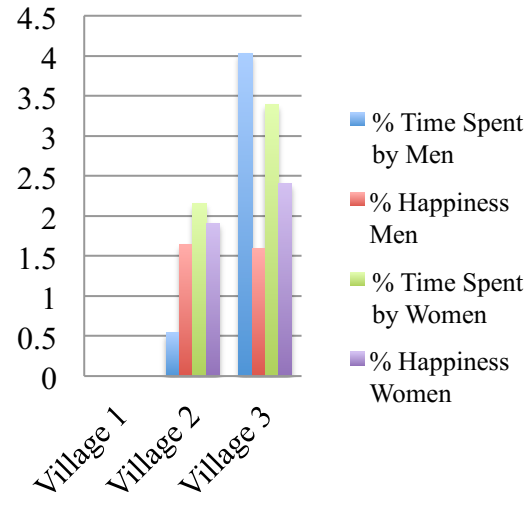




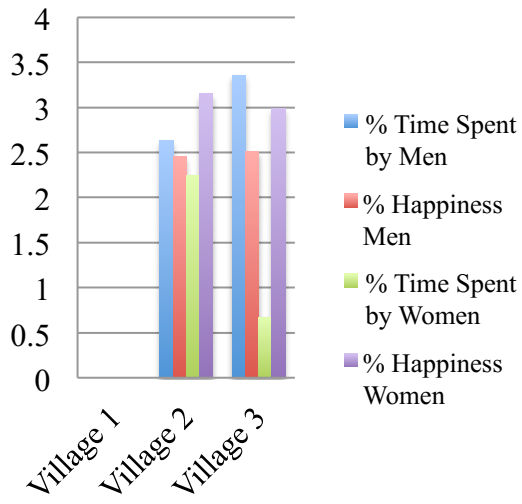
Drinking Alcohol



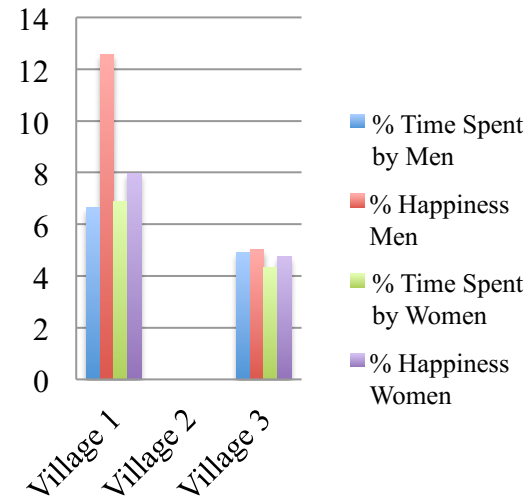
Selling Produce



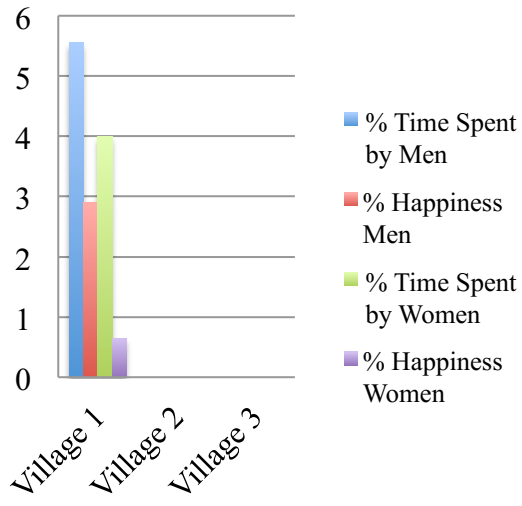
Playing with Children



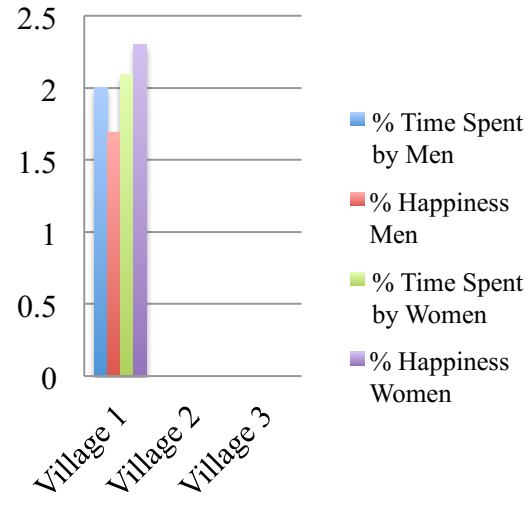
Eating



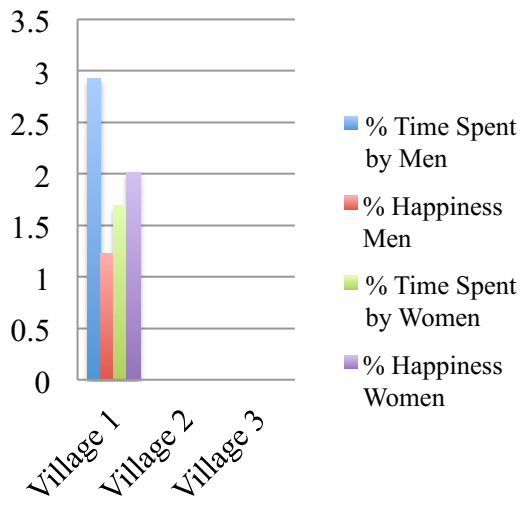
Washing Face



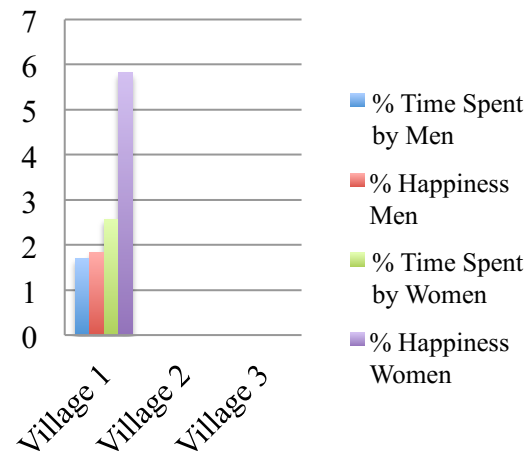
Using the Restroom



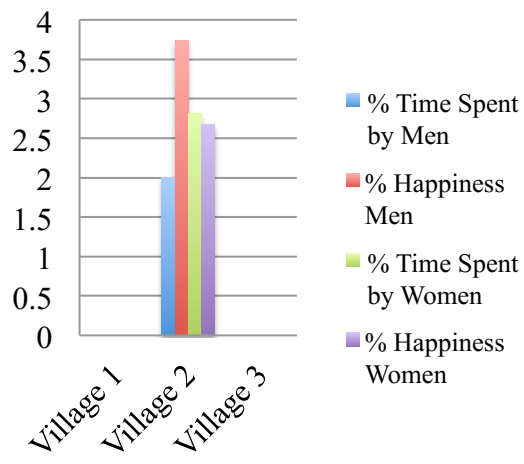
Listening to the Radio



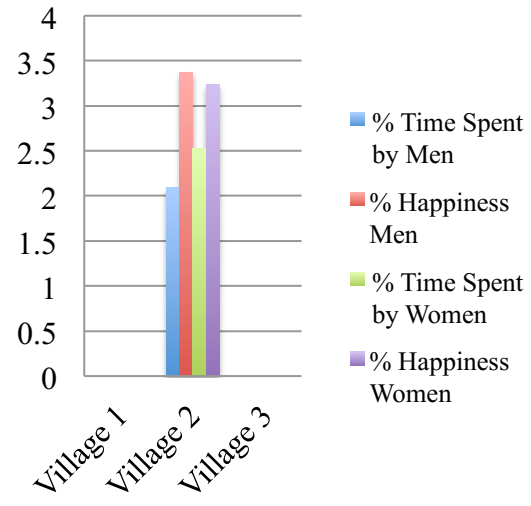
Teaching Children to Pray



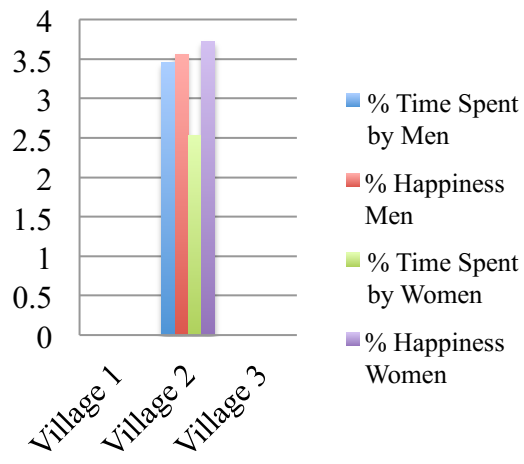
Greeting the Neighbors/ Family



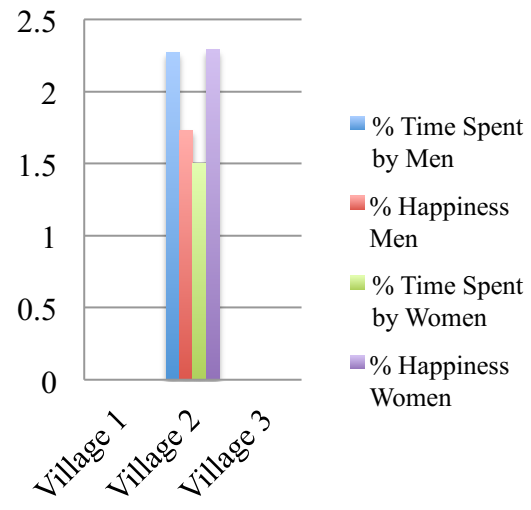
Feeding Animals



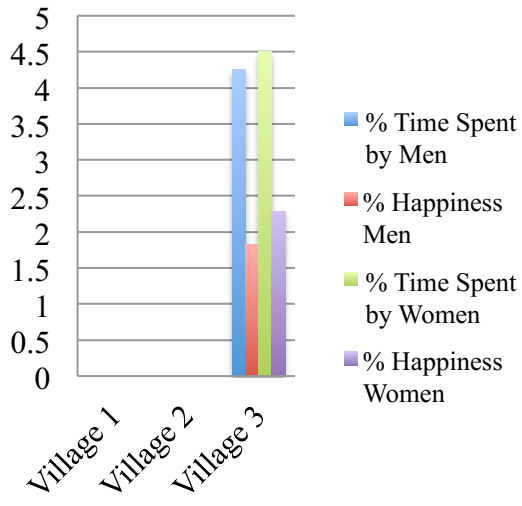
Taking Children to Hospital



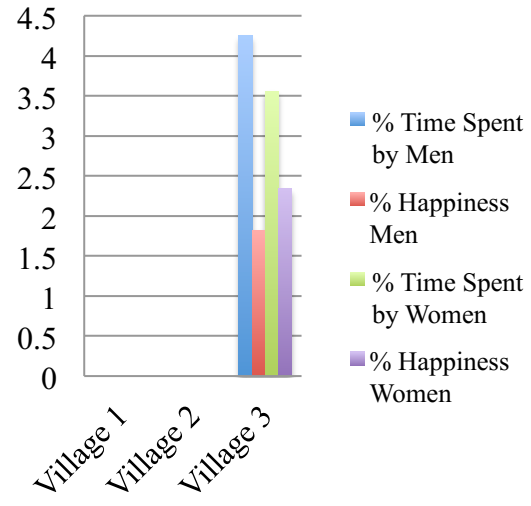
Slashing Compound



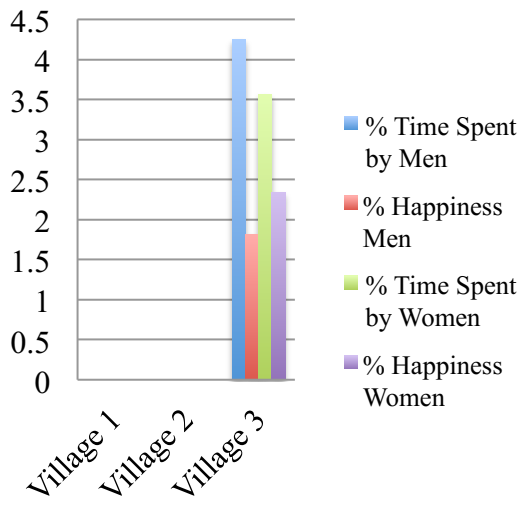
Casual Labor



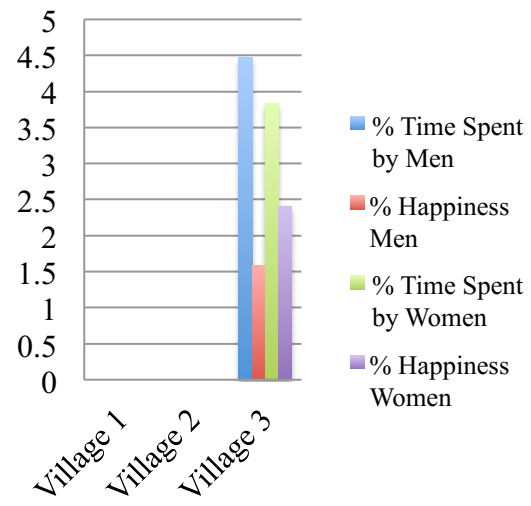
Making the Bed

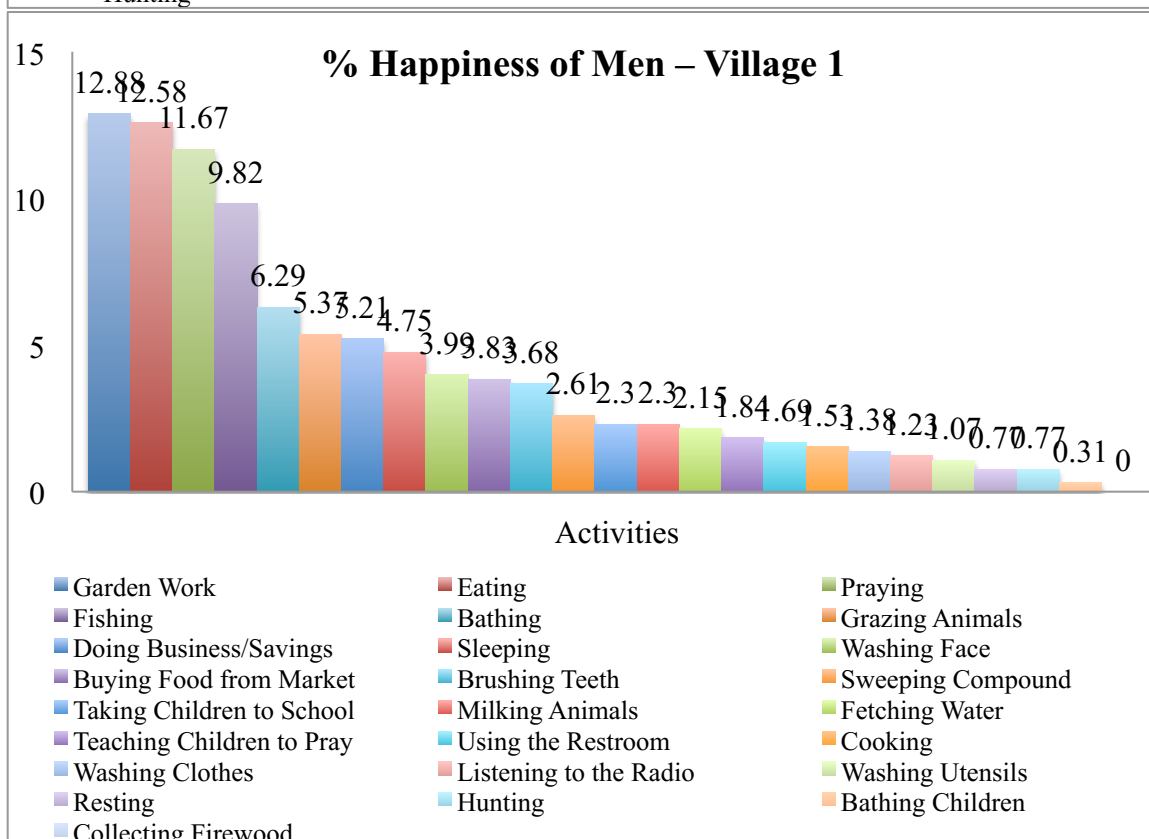
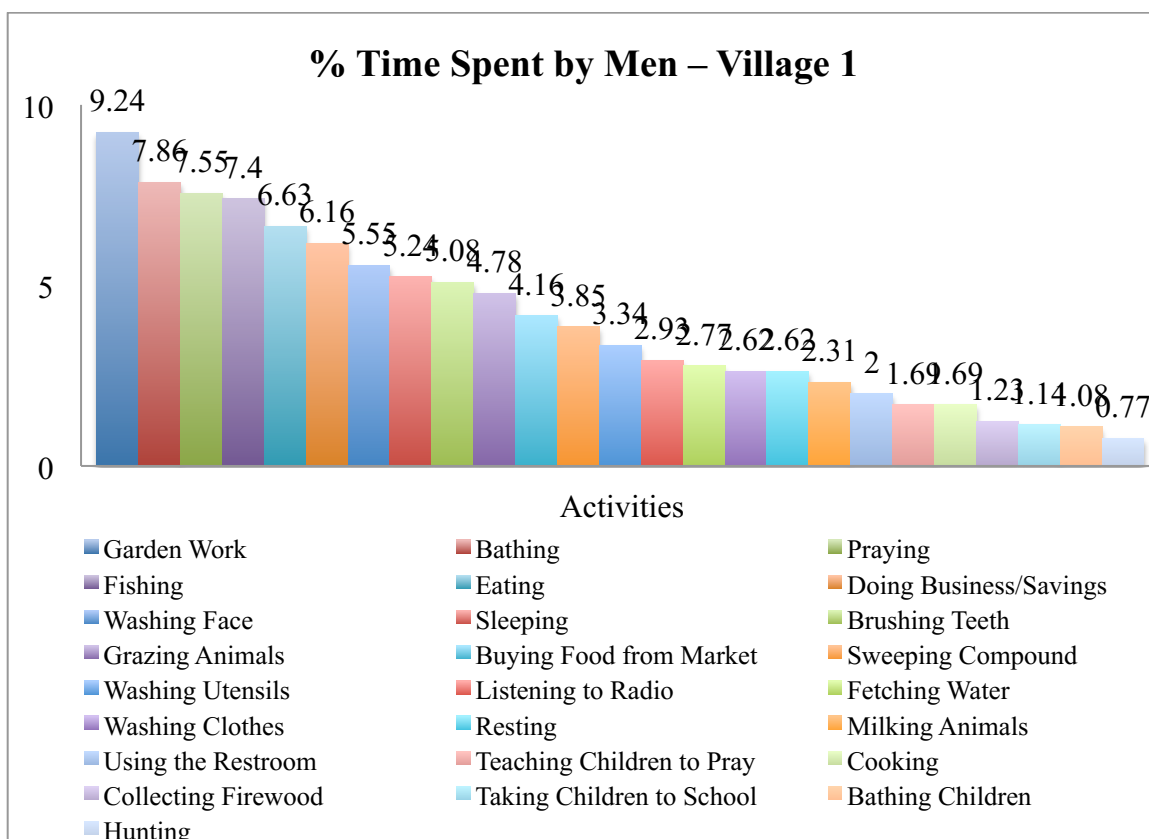


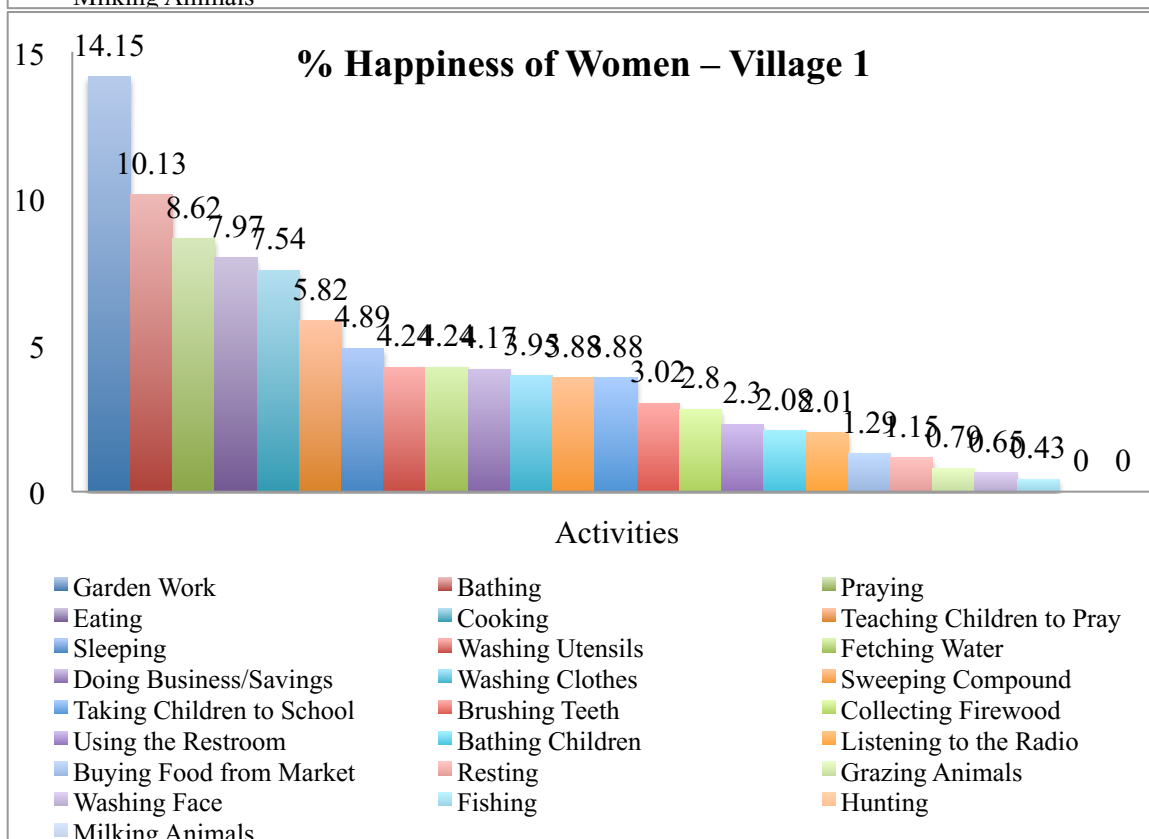
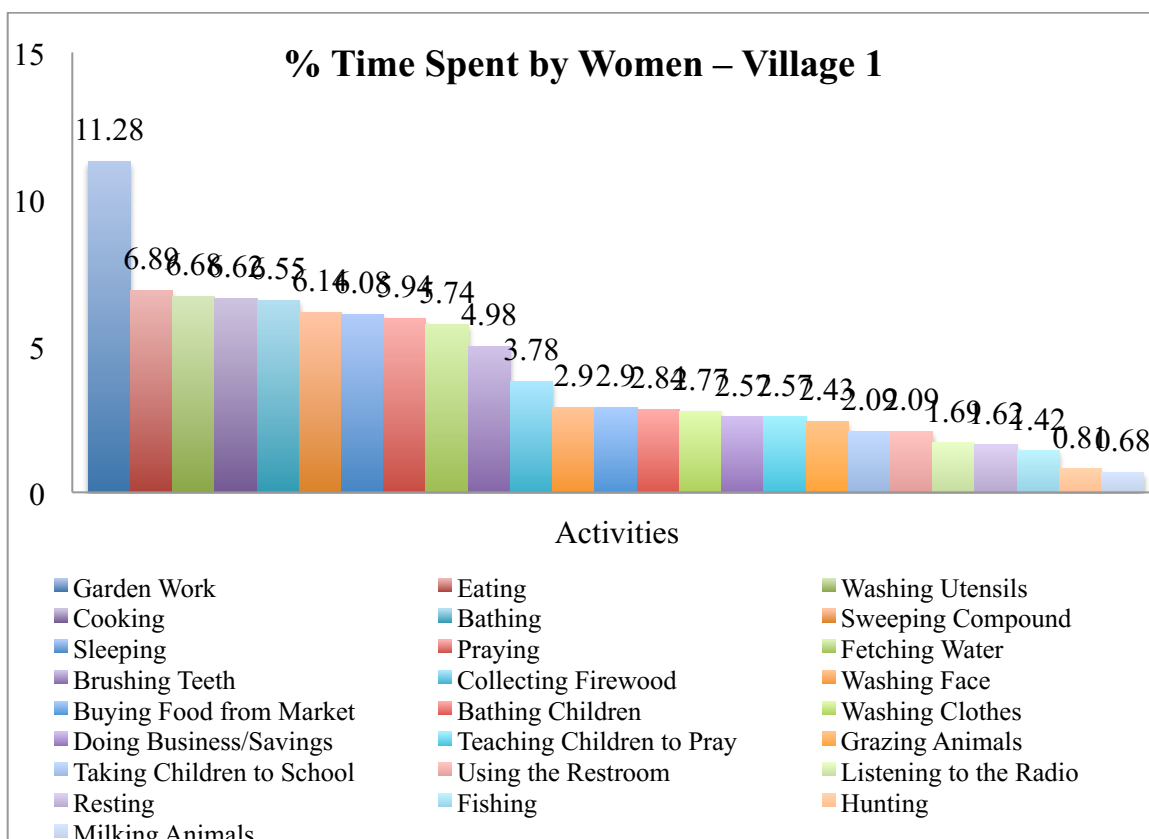
Washing Hands

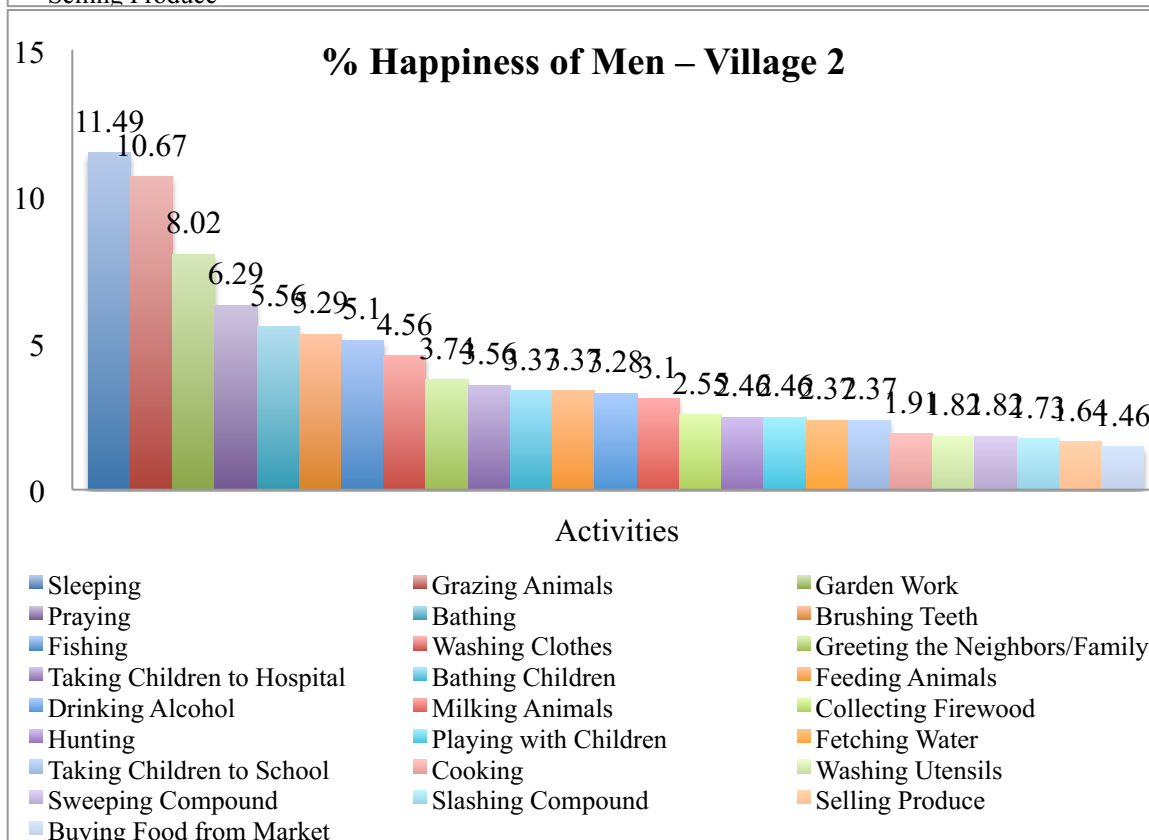
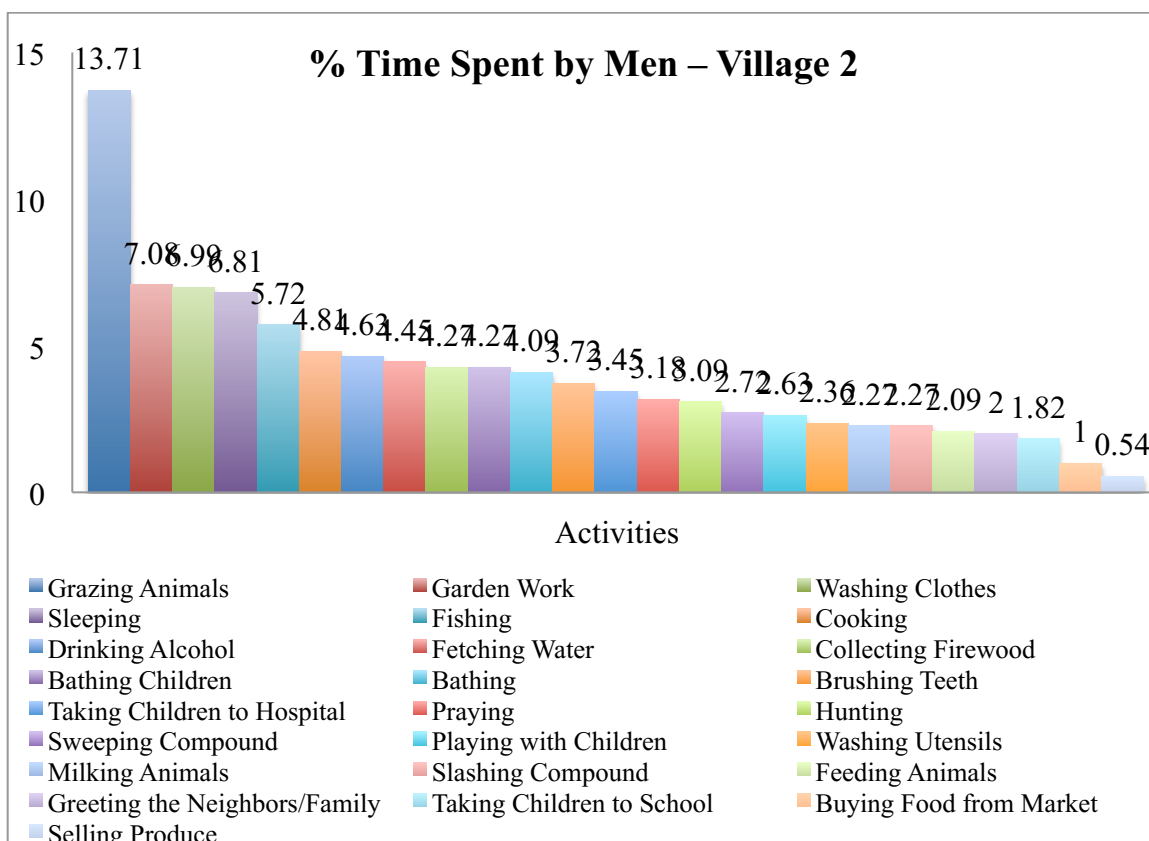


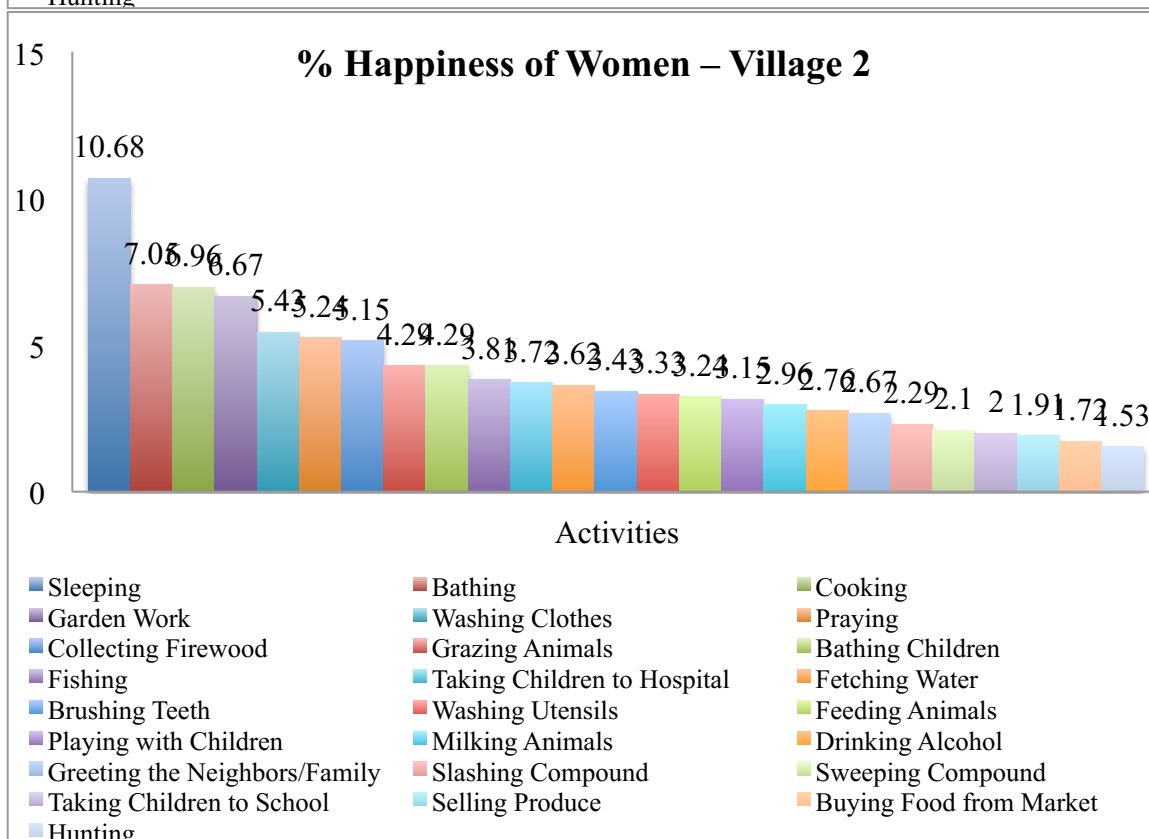
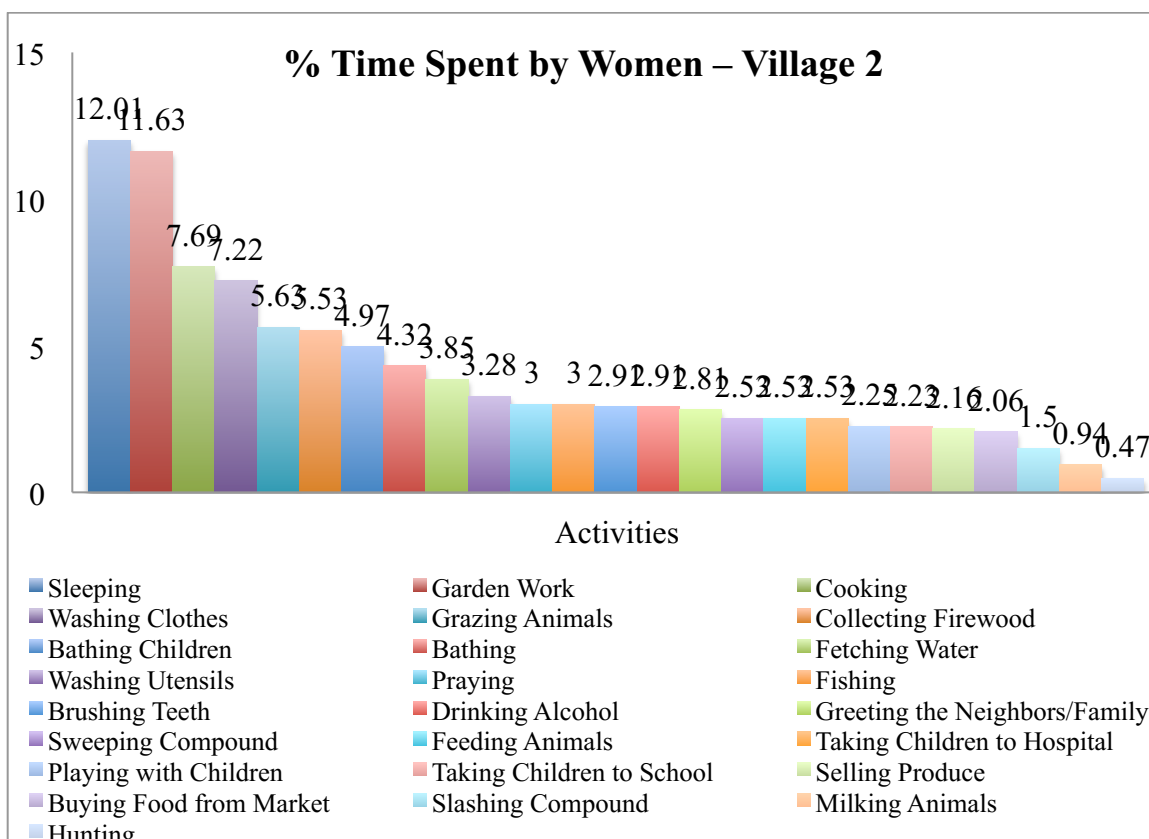
Discussing the Future

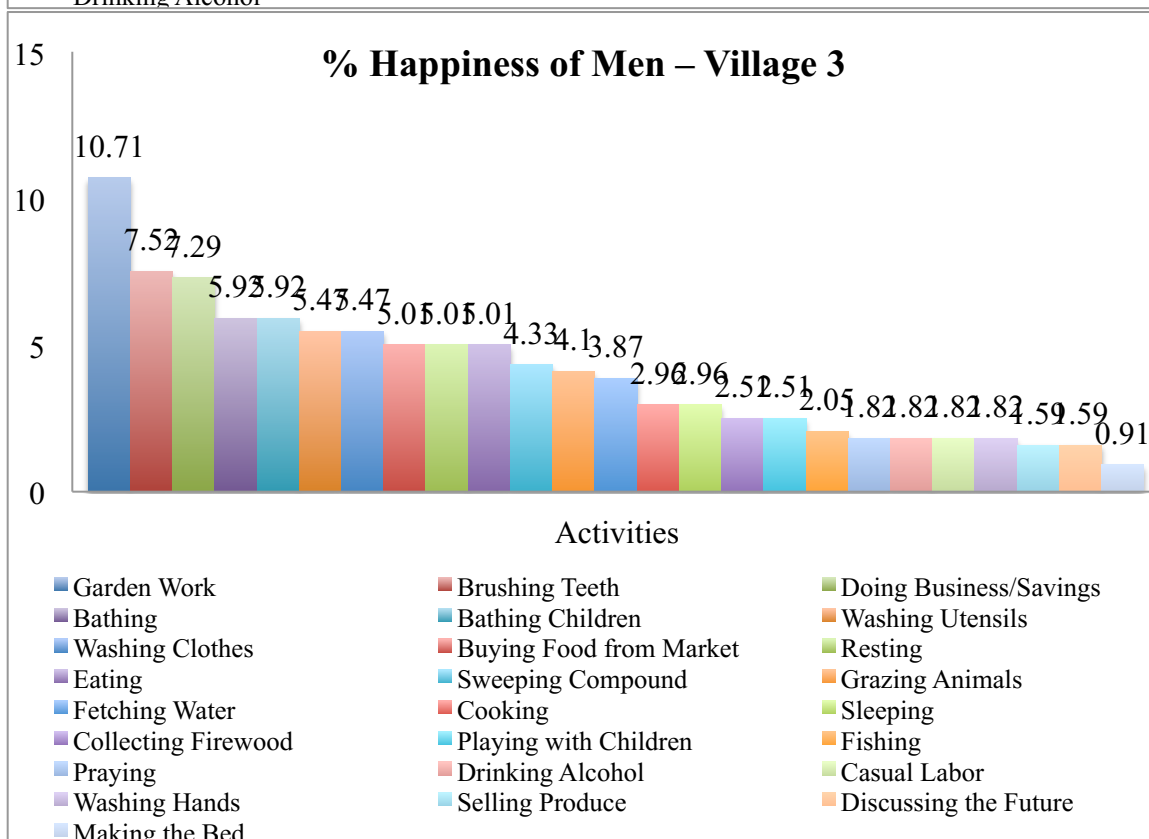
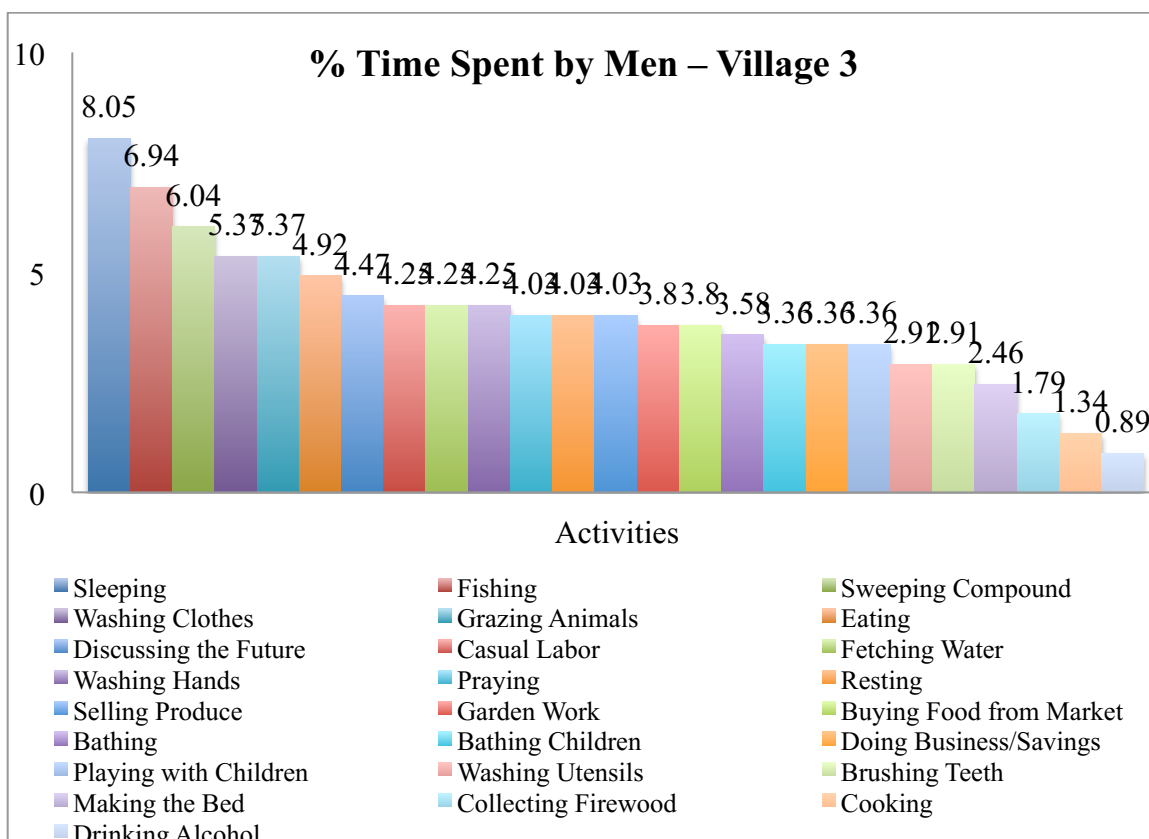


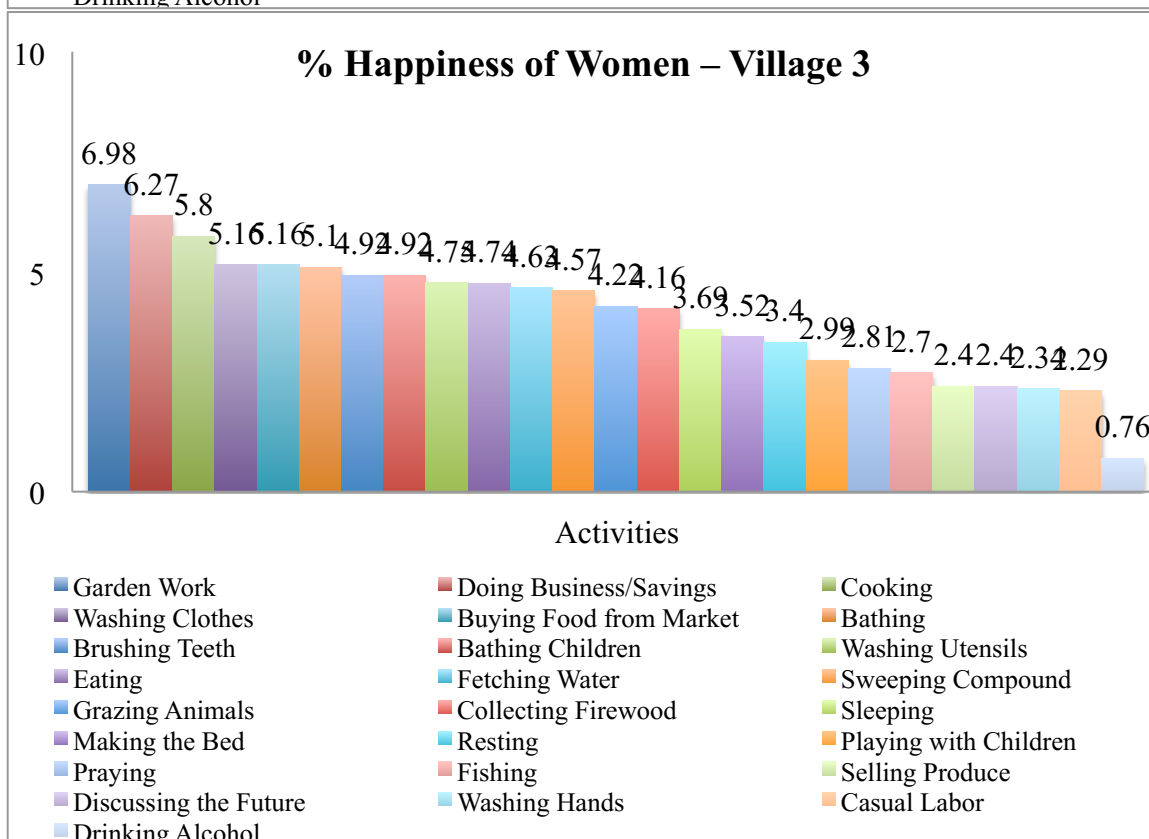
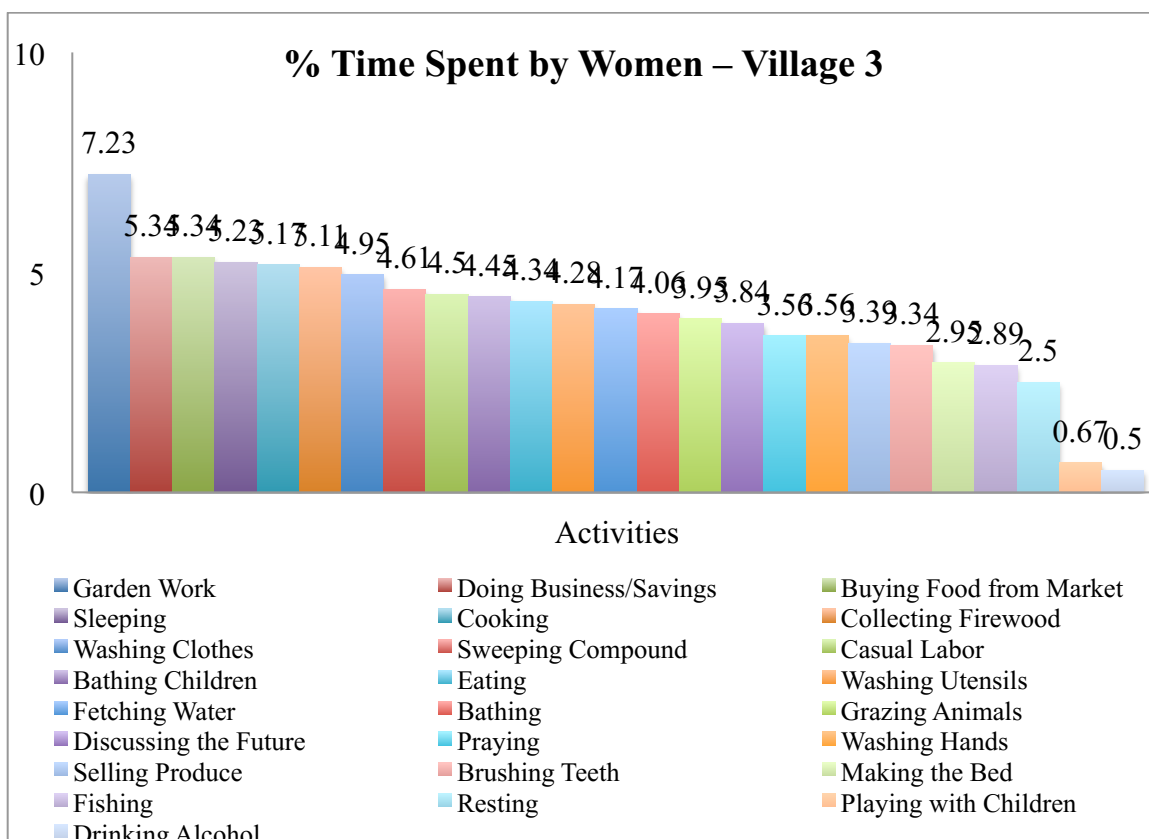












Bibliography

- "About the SNA." The System of National Accounts (SNA). Accessed February 12, 2016. <http://unstats.un.org/unsd/nationalaccount/sna.asp>.
- Blackden, C. Mark, and Quentin Wodon, eds. *Gender, Time Use, and Poverty in Sub-Saharan Africa*. World Bank Working Paper No. 73. Washington, D.C.: International Bank for Reconstruction and Development/The World Bank, 2006.
- Brooks, Arthur C. *Gross National Happiness: Why Happiness Matters for America—and How We Can Get More of It*. New York: Basic Books, 2008.
- Centre for Bhutan Studies & GNH Research. "GNH Index." Accessed May 14, 2015. <http://www.grossnationalhappiness.com/articles/>.
- Diener, Ed, Richard E. Lucas, Ulrich Schimmack, John F. Helliwell. *Well-Being for Public Policy*. Oxford: Oxford University Press, 2009.
- Frey, Bruno S. *Happiness: A Revolution in Economics*. Cambridge: The MIT Press, 2008.
- Frey, Bruno S., and Alois Stutzer. *Economics and Psychology: A Promising New Cross-Disciplinary Field*. Cambridge: The MIT Press, 2007.
- Frey, Bruno S., and Alois Stutzer. *Happiness & Economics: How the Economy and Institutions Affect Human Well-Being*. Princeton: Princeton University Press, 2002.
- Gilbert, Daniel. *Stumbling on Happiness*. New York: Vintage Books, 2006.
- Google Maps. Uganda. Accessed January 30, 2016. <https://mapsengine.google.com/map/u/1/edit?hl=en&hl=en&authuser=1&authuser=1&mid=zo3EUGnshagI.kiA8CUvH1KM0>
- Happy Planet Index. "The Data." Accessed March 16, 2015. <http://happyplanetindex.org/data/>
- Helliwell, John, Richard Layard, Jeffrey Sachs, eds. *World Happiness Report 2015*. New York: Sustainable Development Solutions Network. Accessed May 21, 2015. <http://worldhappiness.report/wp-content/uploads/sites/2/2015/04/WHR15.pdf>.
- Kennedy, Robert F. "Remarks at the University of Kansas." John F. Kennedy Presidential Library and Museum. Speech. Accessed May 21, 2015. <http://www.jfklibrary.org/Research/Research-Aids/Ready-Reference/RFK->

[Speeches/Remarks-of-Robert-F-Kennedy-at-the-University-of-Kansas-March-18-1968.aspx](#).

Krueger, Alan B., Daniel Kahneman, David Schkade, Norbert Schwarz, and Arthur A. Stone. *Measuring the Subjective Well-Being of Nations: National Accounts of Time Use and Well-Being*. Edited by Alan B. Krueger. Chicago and London: University of Chicago Press, 2009.

LaPlante, Alice. "If Money Doesn't Make You Happy, Consider Time." Stanford Graduate School of Business. April 1, 2011.
<https://www.gsb.stanford.edu/insights/if-money-doesn't-make-you-happy-consider-time>.

Marber, Peter. *Brave New Math: Information, Globalization, and New Economic Thinking in the 21st Century*. New York: World Policy Institute, 2014.

Mullainathan, Sendhil, and Eldar Shafir. *Scarcity: Why Having Too Little Means So Much*. New York: Times Books, 2013.

"Policy Applications of Time Use Data." International Association for Time Use Research. Accessed January 30, 2016. <http://www.iatur.org/policy>.

Social Analysis. "Participatory Rural Appraisal." The World Bank. Accessed January 30, 2016.
<http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTSOCIALDEV/0,,contentMDK:21233809~menuPK:3291499~pagePK:64168445~piPK:64168309~theSitePK:3177395~isCURL:Y~isCURL:Y,00.html>.

"Sustainable Development Goals." Sustainable Development Knowledge Platform. Accessed February 10, 2016. <https://sustainabledevelopment.un.org/?menu=1300>.

"Uganda PPI." Progress Out of Poverty. Accessed January 27, 2016.
<http://www.progressoutofpoverty.org/country/uganda>.

"Understanding How Gallup Uses the Cantril Scale." Gallup. Accessed January 12, 2016.
<http://www.gallup.com/poll/122453/understanding-gallup-uses-cantril-scale.aspx>.

"What We Do." Village Enterprise. Accessed January 29, 2016.
<http://villageenterprise.org/what-we-do/>.